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ABSTRACT

The major objectives of this NEFP satellite study were to identify the configuration of human and material resources in high quality educational programs for exceptional children, to ascertain the cost differentials associated with these programs, and to project to 1980 the costs involved in educating all exceptional children who could benefit from special education programs. Fiscal and program data were obtained from 27 school districts in five States having high quality educational programs for exceptional children, and from cost indexes calculated for various program categories. Related documents are EA 003 538 and EA 003 540-543. Funds for this research were provided by an ESEA Title V grant. (Author/RA)

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EDUCATIONAL PROGRAMS FOR EXCEPTIONAL CHILDREN:
RESOURCE CONFIGURATIONS AND COSTS

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National Educational Finance Project
Special Study No. 2

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R.A.R.
J.A.H.
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CHAPTER I

INTRODUCTION

Perhaps no other concept so pervades the history of American education as does the concept of equality of educational opportunity. The founding fathers were emphatic in their expression of the need for a universal system of free public schools open to all, and the writings of each of our early presidents revealed recognition of the importance of universal public education as a foundation of American democracy. That equality of educational opportunity is considered no less important today, and that it has not yet been achieved, is evidenced by President Nixon's message of March 3, 1970, in which he proposed creation of a National Institute for Education and stated: "The purpose of the National Institute of Education would be to begin the serious, systematic search for new knowledge needed to make educational opportunity truly equal".[1]

The history of American education reflects a continual struggle to achieve greater equality of educational opportunity.[2] The attainment of equality of educational opportunity for all Americans, however, has been nearly as elusive as the pot of gold at the end of the rainbow. Although progress indisputably has been made, the end of the rainbow continues to recede as we move toward it.

Exceptional children were for many years widely regarded as not being subject to application of the concept of equal educational opportunity. They often were either discouraged from attending the public schools or excluded from them, and responsibility for the exceptional child's education was assumed to rest with the family – or perhaps consigned to charity. As the concept of equality of educational opportunity increasingly came to be viewed as requiring that every child should be educated to the limit of his ability, there developed apace a recognition that the public school system should accept responsibility for providing educational programs for exceptional children. Thus, there have developed during the present century educational programs for children who previously were considered uneducable.

The Exceptional Child

The term "exceptional child" needs clarification, for it has been applied in varying contexts and has been used in reference to such a diverse array of children that it does not convey a precise meaning. For the purpose of this research, Kirk's definition of the exceptional child was employed:

> The exceptional child is. . .that child who deviates from the average or normal child in mental, physical, or social characteristics to such an extent that he requires a modification of school practices, or special educational services, in order to develop to his maximum capacity.[3]

This basic definition was further restricted by excluding the child who deviates from the average child solely or primarily because of environmentally-related disadvantages. Thus, the so-called "compensatory" educational programs for socially, economically, and/or culturally disadvantaged children did not fall within the scope of this study.

A review of the literature in the field of special education revealed general agreement concerning the categories (or taxonomy) within which programs for educating exceptional children may be placed.[4] The categories identified by most authorities include: (1) intellectually gifted, (2) intellectually handicapped--sometimes further subdivided into slow learner, educable mentally retarded, trainable mentally retarded, and totally dependent mentally retarded, (3) auditorily handicapped, (4) visually handicapped, (5) handicaps arising from neurological disorders, (6) handicaps related to physical disabilities, (7) speech handicaps, (8) handicaps associated with deviant behavior and (9) handicaps arising from learning disorders. In addition, many writers suggest that a tenth category, multiple handicaps, should be included in a taxonomy of exceptional children.

The development of educational programs for exceptional children has been characterized by evolution and expansion. For example, programs for the deaf and hard of hearing, and for the blind and partially sighted have been in existence for many years. The early programs, however, were developed primarily in private schools (concentrated largely in the eastern portion of the United States) and in state institutions for the deaf and/or the blind. The development of educational programs for intellectually handicapped children followed a somewhat similar pattern. It is only during the present century, and especially during the past forty years, that a substantial number of public school systems have attempted to provide educational programs for exceptional children on a broad basis. In fact, it could be argued that only in recent years has the concept of equality of educational opportunity been defined operationally to include the exceptional child.

Concurrent with the realization that exceptional children are entitled to education to the limit of their potential has been the development of programs to serve additional categories of the handicapped. Among the educational programs for exceptional children developed in recent years are those for emotionally disturbed children, children with learning disorders, and children with multiple handicaps. Expansion of educational programs for exceptional children has been accompanied by growing concern for the financing of such programs, especially since they tend to be more expensive than programs for normal children. To date, however, relatively little is known concerning either the relative cost of educating an exceptional child in comparison with the cost of educating a normal child or the program components which contribute to cost differentials.

Objectives

This research was undertaken in an attempt to help fill the existing information gap regarding the relative cost of programs for various categories of exceptional children and the resource inputs which contribute most importantly to the cost of such programs. The research was designed to answer the following questions:

1. What criteria are employed in identifying the various categories of exceptional children and what is the estimated incidence of each category of exceptionality in the total population of school age children?

2. What is the estimated number of school age children currently in each category of exceptionality and how many are estimated to be in each category in 1980?
3. What is the nature of programs for exceptional children which are reputed to be of high quality, particularly with regard to the configuration of human and material resources being applied to such programs?
4. What cost differentials are associated with educational programs for the various categories of exceptional children relative to the costs of the regular school program provided for normal children?
5. What is the cost of educational programs for exceptional children provided in private schools and in public facilities not associated with the regular public school system?

Related Research

Research studies related to the subject matter of this investigation may be classified into those dealing with the incidence of exceptionalities, those dealing with special educational programs for various categories of exceptional children, those dealing with state and federal financial support for programs for exceptional children, and those dealing with cost studies both in the general field of education and in special education.

Incidence of Exceptionalities

The total number of exceptional children in the United States is not known, although several published estimates are available. No national census of exceptional children has ever been taken. However, a few states have undertaken the task of identifying accurately the total number of exceptional children in the state, either through sampling studies or through a complete census of school age children.

A review of the literature revealed that most estimates of the prevalence of various types of exceptionality trace directly to the estimates prepared by Mackie and Dunn in 1954.[5] Table 1.1 summarizes a number of estimates of the prevalence of exceptional children of school age. As noted in an earlier article,[6] data gained from state studies generally have resulted in overall estimates of prevalence similar to those shown in Table 1.1.

Among the serious problems which arise when one attempts to compare the estimates of prevalence which have been obtained in various surveys and studies are those related to the question of whether or not the data are comparable. For example, there are differences in the definition of each exceptionality, differences in the criteria employed to identify the existence of the exceptionality, differences in the locale where studies were performed and differences in the methodology employed by the investigators. Consequently, generalizations based on the studies of prevalence of exceptionalities which have been reported are of questionable accuracy at best.

The ability of states and school districts to plan programs which will accommodate the needs of exceptional children obviously is seriously jeopardized by the lack of accurate data regarding the prevalence of various exceptionalities. Such data are needed desperately on both a state and a national basis. Operations Research, Inc., under a contract with the U.S. Office of Education's Bureau of Education for the Handicapped, conducted during the past year a state-by-state survey to collect data and to develop information flow procedures within each state needed to utilize a mathematical model designed to assist each state in the systematic consideration and evaluation of all elements contributing to the determination of special education manpower needs. Part of the output of the Operations Research project – the latest available state-by-state estimates of the prevalence of various categories of exceptionality – is of particular relevance to this study and will be reported in a later chapter.

TABLE 1.1

ESTIMATES OF THE PREVALENCE OF EXCEPTIONAL CHILDREN OF SCHOOL AGE

		Estimate of Prevalence		Estimated Number of School-Age Children	
Exceptionality	a	b	c	d	e
Visually handicapped	0.2		0.1		
Blind		.033		13,800	17,300
Partially seeing		.06		25,100	31,400
Auditorily handicapped	1.5				
Deaf		.075	.075	31,300	39,200
Hard of hearing		.5	.5	208,900	261,500
Speech impaired	2.0	3.5	3.5	1,462,400	1,830,400
Crippled	1.5	1.0	.5	417,800	522,900
Special health problems	1.5	1.0		417,800	522,900
Emotionally disturbed or socially maladjusted	2.0	2.0	2.0	835,600	1,045,800
Gifted	2.0	2.0	N.A.	835,600	1,045,800
Mentally retarded	2.0	2.3	2.3	961,000	1,202,700
Specific learning disabilities	N.A.	N.A.	1.0		
Total	12.7	12.468	9.975	5,209,400	6,519,900

a. Estimates by Romaine P. Mackie and Lloyd M. Dunn, COLLEGE AND UNIVERSITY PROGRAMS FOR THE PREPARATION OF TEACHERS OF EXCEPTIONAL CHILDREN, USOE Bulletin No. 13, Washington, D.C., GPO, 1954.

b. Estimates by Romaine P. Mackie, Harold M. Williams and Patricia P. Hunter, STATISTICS OF SPECIAL EDUCATION FOR EXCEPTIONAL CHILDREN AND YOUTH, 1957-1958, USOE Bulletin OE-35048-58, Washington, D.C., GPO, 1963.

c. Bureau of Education for the Handicapped, U. S. Office of Education, "Estimates of Current Manpower Needs in Education for the Handicapped, 1968-1969," Washington, D.C., December, 1968 (Mimeo).

d. Mackie, Williams, and Hunter, *op. cit.*

e. Estimates based on incidence estimates by Mackie, Williams and Hunter (Col. b) and estimated population age 5-17, July 1, 1968, from Research Division, National Education Association, ESTIMATES OF SCHOOL STATISTICS, 1968-1969, Research Report 1968 R-16, Washington, D.C., NEA, 1968.

Educational Programs for Exceptional Children

The nature of the educational programs provided for the various categories of exceptional children was the subject of an extensive review in a previous publication of the National Educational Finance Project.[7] That review will not be reiterated here. It should be noted, however, that little evidence documenting the efficacy of the various programs was uncovered. Research studies and evaluation reports in support of the instructional programs for exceptional children recommended in the literature were conspicuously absent. In the area of mental retardation, for example, the literature is replete with investigations of the relative efficacy of educating mentally retarded children in isolation from normal children versus fusing them into classrooms with normal children to the maximum extent feasible. Although some studies lend support to fusion and some lend support to isolation, the preponderance of the studies report no significant difference in the efficacy of the two approaches. One may speculate that the researchers might better have directed their attention to the educational process itself, rather than to the organizational arrangements within which the educational process occurred, for there is ample evidence that merely changing organizational arrangements will not *ipso facto* change the educational process. Yet, it is clear that it is the nature of the educational process, i.e., the interface between the learner and the cognitive or affective behavior the learner is to acquire, that ultimately will determine the efficacy of any educational program.

Financing Programs for Exceptional Children

Although the financing of education has attracted the attention of scholars since the turn of the present century, the financing of educational programs for exceptional children has received very little attention. Only in recent years have there been studies directed specifically to the problems of financing special education programs for exceptional children.

The U.S. Office of Education has regularly published summaries of the public school finance programs of the fifty states.[8] These publications have provided the only available comprehensive (though necessarily abbreviated) information concerning the nature and operation of public school finance programs in the various states. A thorough analysis of the public school finance programs reported for 1968-69 revealed that twenty-three states provided categorical aids for special education programs, ten states provided general aid, thirteen states provided a combination of categorical and general aid, and four states reported no specific provisions for financial support of special education programs.

The "Analytic Study of State Legislation for Handicapped Children," conducted by the Council for Exceptional Children, provided the most recent comprehensive review of state provisions for the financial support of educational programs for exceptional children. Two years were spent in scrutinizing state legislation relating to special education. The following summary of the results of the analysis of state special education finance laws was made:

> . . .most states have some form of reimbursement to local school districts for efforts for handicapped children beyond the general school reimbursement. . . .We might group the reimbursement formulae in two overall categories: unit formulae and per pupil formulae.

An example of a pure unit support program is the state of Alabama which provides one unit (which in this case is the minimum foundation support level for a teacher) for each class of special education students. Florida's special education laws are somewhat similar to those of Alabama. Florida, also operating on a unit basis, allows one unit to be granted for every ten exceptional children in special classes, one unit for every ten preschool children, as well as varying units to meet transportation costs. Unit systems such as those described above are most common in states operating under minimum foundation programs. Unit formulae place great fiscal authority in the hands of state boards of education and state legislatures, since the units must be appropriated in order to have any level of state financial assistance.

A second type of unit formulae we might call the percentage reimbursement. A good example of this type of law is Virginia's which provides that the state assume 60% of the cost of teachers salaries at the state minimum salary level, 60% of the hourly rate of visiting teachers, and 100% of the cost for staff serving children in hospitals. Another type of percentage reimbursement might be called the 100% reimbursement or full support program. An example of this can be found in South Dakota where the state provides 100% of the approved amount for the program. Such financial reimbursement formulae can be misleading, since, due to low levels of state appropriations, as well as rapid rates of program growth, financing may be well below the 100% figure.

The second general category of reimbursement is the per pupil reimbursement. Under this system there are three basic patterns with variations.

First, there is the system which might be labeled the "straight sum reimbursement," as typified by the State of Arizona, which provides, in addition to the general state per pupil reimbursement, \$600 for each trainable mentally retarded child, and \$200 for all other types of handicapped children.

A second type of per pupil reimbursement is the excess cost formula. Under this system, the district first determines a per pupil cost of instruction, then subtracts from this cost the cost of educating a non-exceptional child in the same district. Once the excess cost figure is obtained, there are several variations on reimbursement. The first is exemplified by the state of Pennsylvania which places no limit on the excess cost. Tennessee represents a second type of formula in that the law places specific limitations (\$300) on the amount that the state may reimburse. A third variation is found in Michigan where the state reimburses a percentage of the excess cost, depending upon the amount appropriated by the legislature.

The third type of per pupil reimbursement is the weighted formula. An example of this is New Mexico's law which uses a multiplier in determining the reimbursement for handicapped children. The State of Mississippi uses a somewhat similar approach on a unit basis by providing additional teacher units for special classes.9

In a working paper prepared by the Council for Exceptional Children after completion of the "Analytic Study of State Legislation for Handicapped Children," the following comments were made regarding needed further research in the financing of special education:

> We need information on the finances of special education at the local level. Perhaps the first statistic should be what is the cost of special education?
>
> A second area that needs examination under local funding is the interlocking and overlapping nature of special education and general education finance. . . .We need to have data which would determine the financial uniqueness of special education and, secondly, we need to know the degree to which we utilize basic school operation.[10]

The research reported herein represents a significant step toward providing the information regarding local program costs called for by the Council for Exceptional Children.

Although piecemeal legislation had been adopted previously, the first major federal legislation which provided funds for the education of exceptional children was enacted in 1958.[11] Appropriations for federal programs aimed at the improvement of educational programs for the handicapped have increased rapidly in recent years, rising from $53.4 million in fiscal year 1968 to $78.85 million in fiscal year 1969, with appropriations for fiscal years 1970 and 1971 estimated at $85.85 million and $95 million, respectively.[12] Horn and Bowers concluded from their analysis of seventy-three Public Laws enacted between 1949 and 1968 which contained provisions for education of the handicapped that:

> The legislation can be characterized as direct or indirect aid which usually falls into one of four categories, research, training, demonstration, or construction. Very little of the aid is given directly to the handicapped individual; most of it comes indirectly through a state agency, institution of higher learning, or local education agency. The pattern of legislative action has been one of gradually expanding services to a particular group, such as the blind or deaf, until virtually all handicapped persons are included. The pattern is to include all the handicapped and by implication show that a particular program is more appropriate for one group than for others, e.g., work-study programs or the job-training programs.[13]

Cost Studies in Education

Cost studies in education have a long (and sometimes inglorious) history. Among the first cost studies to attract attention were those conducted by devotees of the "scientific management" movement.[14] These early studies dealt primarily with unit costs for various curricular offerings and reportedly were used to justify exclusion from or retention in the school curriculum of certain courses solely or primarily on the basis of the cost per unit of instruction associated with them.[15] The overemphasis on cost and attendant lack of concern for benefits which accompanied this misuse of cost studies has been severely criticized — and justly so.

A second major series of cost studies were those conducted by Paul Mort and his associates over a thirty-year period in their search for the "cost-quality" relationship in education.[16] These studies have provided empirical evidence to support the logical assumption that the quality of education provided to pupils is directly related to the amount of money expended for each pupil. On the basis of these studies, it would appear that the correlation between expenditure level and school quality, as measured by various instruments developed and refined by Mort and his colleagues, was rather consistently in the neighborhood of .60.

A third type of cost study common in education is the comparison of school expenditures among states and among school districts. The National Education Association, for example, annually publishes reports such as *Rankings of the States* and *Financial Status of the Public Schools* which contain information on per pupil receipts and expenditures for education in the various states. The U.S. Office of Education, as well as many state departments of education and/or state education associations, regularly publish reports which detail the per pupil expenditures in various functional categories made by individual school districts, categories of districts, and states.

A fourth source of information concerning school expenditures is the "Cost of Education Index" published annually for the past eleven years by *School Management.*[17] This publication provides statistical data on public school spending by expenditure category and by region within the nation. The data are obtained from a sample of about 1,200 school districts selected to provide appropriate representation by geographic region, student population, and expenditure per pupil.

The cost studies cited above deal almost exclusively with per pupil expenditures without regard to the nature of the target populations served by the school district. Data regarding expenditures for various components of the school curriculum, or for various groups of children served by the schools, have been virtually non-existent, at least until recent years. However, McLure, working in conjunction with the Research Council of the Great City Schools, recently undertook a series of studies which have provided information regarding the structure of educational costs in some of the large cities.[18]

Most of the cost studies conducted in the past have either compared items of current expense (e.g., teachers' salaries, instructional supplies, plant operations, etc.) among districts or over a time dimension, or have compared the cost of public education with the cost of various municipal services. Attempts to differentiate expenditures for education generally have been made on the basis of administrative units, e.g., elementary and secondary, rather than on the basis of educational programs and/or target groups. The traditional structure of school accounting adequately serves the fiduciary functions, but it fails to provide data regarding the configuration of human and material resources being applied to various educational programs within the school.

Cost Studies in Special Education

Three very recent investigations were identified in which an attempt was made to determine the nature of the costs associated with various special educational programs. In 1967 the California State Department of Education was directed by the California Legislature (Assembly Concurrent Resolution No. 7) to make a study of the costs and expenditures for special education in that state. Special education programs in thirteen school districts – two high school districts, five elementary districts, and six unified districts – were studied, as were special education programs operated by the Office of the County Superintendent of Schools in each of eight counties. The study was conducted during late 1967 and early 1968 by staff members of the California Department of Education. The results of the study were summarized as follows:

a. Cost and Expenditures for Special Education

The group found that accounting practices, while consistent in bookkeeping procedure, varied between districts because of different district financial information needs. Some districts felt it was necessary to determine costs by prorating all indirect costs (i.e., business office, data processing) to the program. Other districts felt that only direct charges were an accurate determination of cost. There was no attempt by the group to reconcile these two approaches to cost accounting.

b. Relative State and Local Share of the Support Program

The state and local share of the financial support program was determined by comparing in the form of a ratio, the state share to program cost and the local share to program cost.

Established district programs, such as the Educable Mentally Retarded program, showed a state support ratio from a low of .221 to 1.000 to a high of .869 to 1.000. This would indicate that in one district the state contributes two-tenths of the financial support, while in another district the state contributes nearly nine-tenths of the support. This variation appears to be due to the accounting practices of the district and/or to the district commitment in providing local money for the support of the program.

In some programs, the district received more state aid than it reported expended in the program so there was no designated actual local support necessary.

c. Sources of Support

Support for special education is principally derived from state aid and local support. Additional support for district programs comes from the federal government when there is a high concentration of federal employees within the district. This was an important source of revenue in one of the districts studied.

The only other important source of support for a district's program is from Incoming Transfers. This is tuition paid by one district to another for a service.

d. How the Money is Spent in the Various Programs

To determine how the money is spent in the various education programs, it was necessary to identify and define the elements that are common to all of the special education programs. The identified elements had to be the same, or similar, in all of the programs offered by the districts or county superintendents of schools. These elements – administration and supervision, instruction, in-service education, pupil personnel and related services, and facilities and services – were defined by the special education consultants and these definitions were used in developing a survey document that guided the consultants in their evaluation of the educational programs being maintained by the districts and county superintendents of schools.

1. Administration and Supervision

Results of the evaluation of administration and supervision practices showed that a high percent of districts had administrative policies for the placement of handicapped children, a published course of study, and a procedure to evaluate the special education budget. There was little basic research being done by the districts.

2. Instruction

Instructional program elements that were well defined were testing and pupil evaluation, parent reporting, opportunities for study trips, and provision was made for a program supply budget. About half of the districts employed curriculum or instructional specialists to work with special education teachers.

3. In-Service Education

Nearly every district had a special education professional library. In-service meetings, with special education experts in charge, were available in most of the districts.

4. Pupil Personnel and Related Services

The pupil personnel and related services survey showed that the districts studied had definite referral and trial student enrollment procedures in operation. A current census of handicapped children was not available in most districts.

> 5. Facilities and Services
>
> The facilities and services survey was designed to ask questions about the shifting of special education classes after the start of the school year to accommodate the shifts in the general school population. A few districts had an administrative procedure which involved shifting special education pupils from location to location.
>
> Less than half of the housing provided in the districts or by the county superintendent of schools office was designed for special education instructional purposes. Districts were considered to be providing adequate housing if 50 percent of the classrooms in use were designed for special education.[19]

The cost data obtained in the California study had only limited utility because, as noted, accounting procedures varied considerably from one district to another. (For example, cost per pupil in average daily attendance in programs for the educable mentally retarded ranged from $711 to $2,650 in the thirteen sample school districts in 1966-67.) A further limitation of the data reported was the lack of information provided on expenditures for the various program elements. Finally, no data on expenditures for other educational programs provided by these districts were reported.

A second study which developed cost data for various educational programs, including special education, was undertaken by the Rochester (N.Y.) Bureau of Municipal Research, Inc.[20] The study included the eighteen school districts in Monroe County, New York, including the school district serving the City of Rochester. It was found that the outlay for special educational services per pupil in average daily attendance during the 1967-68 school year ranged from $26.05 to $60.33 in the non-city school districts, with a median of $45.25. The Rochester City School District reported a per pupil outlay of $77.39. The estimated unit cost of various special education programs, i.e., outlays for special education programs related to the number of pupils receiving the service, were reported as follows by the Board of Cooperative Educational Services serving the eastern portion of the county:

Educable mentally retarded	$1,624
Trainable mentally retarded	1,709
Emotionally disturbed	560-3,785
Perceptually handicapped	2,339
Physically handicapped	1,335-1,900

In comparison, the per pupil cost of regular day school instruction was $503.32 in the city and ranged from $527.52 to $743.67 in the non-city districts.[21]

The New York State Department of Education has recently obtained data from several cities in the state regarding the cost per pupil served in educational programs for various categories of exceptional children. Preliminary analysis of the data indicated the following cost ranges (exclusive of capital outlay, debt service and transportation):[22]

Educable mentally retarded	$924-1,637
Trainable mentally retarded	941-1,751
Emotionally disturbed	1,345-2,432
Visually handicapped	837-2,439
Auditorily handicapped	1,096-2,797
Physically handicapped	563-1,838

The study reported herein should greatly extend knowledge of the cost of educational programs for various categories of exceptional children relative to the cost of educational programs for normal children. It also provides information concerning the configuration of human and material resources being applied in educational programs for exceptional children, as well as information concerning those program components which contribute materially to cost differentials.

FOOTNOTES

1. U.S. Congress, House, MESSAGE FROM THE PRESIDENT OF THE UNITED STATES ON EDUCATIONAL REFORM, 91st Cong., 2d Sess., 1970, House Doct. No. 91-267, p. 3.

2. See, for example, R. Freeman Butts and Lawrence A. Cremin, A HISTORY OF EDUCATION IN AMERICAN CULTURE (New York: Henry Holt and Co., 1953), pp. 190-213, 357-70, 516-25, 571-84.

3. Samuel A. Kirk, EDUCATING EXCEPTIONAL CHILDREN (Boston: Houghton-Mifflin, 1962), pp. 4-5.

4. Richard A. Rossmiller, "Dimensions of Need for Educational Programs for Exceptional Children," DIMENSIONS OF EDUCATIONAL NEED, ed. R. L. Johns, Kern Alexander, and Richard A. Rossmiller (Gainesville, Fla.: National Educational Finance Project, 1969), pp. 70-85.

5. Romaine P. Mackie and Lloyd M. Dunn, COLLEGE AND UNIVERSITY PROGRAMS FOR THE PREPARATION OF TEACHERS OF EXCEPTIONAL CHILDREN, USOE Bulletin No. 13 (Washington, D.C., GPO, 1954).

6. Rossmiller, *op. cit.*, pp. 64-65.

7. *Ibid.*, pp. 70-85.

8. The most recent publication in this series is Thomas L. Johns (ed.), PUBLIC SCHOOL FINANCE PROGRAMS, 1968-69 (Washington, D.C.: GPO, 1969).

9. Council for Exceptional Children, "Summary of Analysis of State Special Education Finance Laws," March, 1968. (mimeo).

10. Council for Exceptional Children, "Prospectus on Financing Special Education," undated (mimeo).

11. Rossmiller, *op. cit.*, pp. 86-87.

12. NEA REPORTER, February 27, 1970, p. 2.

13. Charles J. Horn, Jr. and Norman E. Bowers, "Federal Legislation Relating to the Education of Handicapped Children," Department of Special Education, University of Illinois, June, 1968. (mimeo).

14. Raymond E. Callahan, EDUCATION AND THE CULT OF EFFICIENCY (Chicago: University of Chicago Press, 1962), pp. 19-125.

15. *Ibid.*, pp. 65-79.

16. Paul R. Mort, Walter C. Reusser, and John W. Polley, PUBLIC SCHOOL FINANCE (3d ed.; New York: McGraw-Hill, 1960), pp. 77-89.

17. See, for example, Orlando F. Furno and James E. Doherty, "Cost of Education Index 1969-70," SCHOOL MANAGEMENT, XIV (January, 1970), pp. 35ff.

18. William P. McLure, THE STRUCTURE OF EDUCATIONAL COSTS IN THE GREAT CITIES (Chicago: Research Council of the Great Cities Program for School Improvement, 1964).

19. California State Department of Education, "A Study of Special Education Programs, 1966-67," (A report submitted pursuant to Assembly Concurrent Resolution No. 7, 1967, for the Assembly Education Committee), undated, pp. 4-6 (Xerox).

20. Stephen H. Greenspan and Frederick J. Grasberger, TARGET: THE THREE E's (Rochester, N.Y.: Rochester Bureau of Municipal Finance, Inc., 1969).

21. *Ibid.*, pp. 45-47.

22. Data provided by Dr. John Polley, Assistant Commissioner for Educational Finance and Management, New York State Department of Education.

CHAPTER II

DESIGN OF THE STUDY

The value and usefulness of any study are inextricably related to the extent to which the study may be replicated, to the validity and accuracy of the data which were acquired, and to the appropriateness of the procedures employed in analyzing the data. The purpose of this chapter is to provide a description of the design of the study and the procedures which were employed so that (1) those who might wish to replicate the study may do so and (2) those who wish to make use of our findings will understand how they were obtained.

Conceptually, the research reported herein may most appropriately be regarded as a series of case studies. It became apparent very early in the study that no agreement existed in the literature concerning the nature of exemplary educational programs for exceptional children. Yet, it seemed clear that any attempt to forecast the demand for educational programs for exceptional children in 1980 should be based on what is thought to be the best current practice in this field. Consequently, the first major design task was to develop a procedure that would yield a sample of school districts which were regarded by persons knowledgeable in the field of exceptional child education as providing exemplary (i.e., high quality) programs for exceptional children.

A second major design task was that of developing instruments and procedures which would yield accurate and reliable data concerning both the costs associated with educational programs for each of the various categories of exceptionality and the configuration of resources being applied in each program. The difficulties inherent in securing comparable data were boldly underlined by the problems encountered in the recent California and New York studies reviewed in the preceding chapter.

In the remainder of this chapter are reported the rationale and procedures employed in conducting the study. In the first section the selection of the sample will be treated; in the second section the procedures employed to collect the data will be explicated; in the final section the procedures employed in analyzing the data will be discussed.

Selection of the Sample

A two-step procedure was employed in obtaining a sample of school districts in which data for the study would be gathered. First, it was necessary to identify a representative sample of states which were regarded by authorities in special education as being among the leading states in the provision of educational programs for exceptional children. Second, it was necessary to identify within each of these states a sample of school districts (or other educational agencies) which would be broadly representative of districts within the state which were providing high-quality, comprehensive educational programs for exceptional children.

Selection of States

The proposal for this research specified that a sample of approximately five states offering exemplary programs for exceptional children would be selected. Exemplary programs were defined as those programs demonstrated by empirical evaluation to be effective or which most closely correspond with the recommendations of authorities. When the literature failed to reveal programs proven empirically to be effective, it was necessary to turn to authorities in the field of exceptional child education for assistance in identifying a sample of states.

Advice and counsel was sought from personnel in the U.S. Office of Education's Bureau of Education for the Handicapped, from members of the staff of the Council for Exceptional Children, and from colleagues in the Department of Behavioral Disabilities at the University of Wisconsin, regarding persons who were generally familiar with special education programs in the various states. Specifically, we asked them to identify persons they believed to have a broad knowledge of the educational programs for exceptional children which are found across the United States. A total of eighteen persons was suggested. From this list a panel of nine persons was identified. The panel members were chosen to secure adequate geographic representation and to secure representation from various vocational affiliations, e.g., state department of education personnel, university professors, and program administrators at the school level.

Each of the nine panel members was then contacted by letter, requested to serve on the panel, and asked to identify "the five states that, on the basis of your knowledge and judgment, are doing the most outstanding job of providing high quality educational programs for exceptional children." The panel members also were invited to identify individual school systems, residential schools, and public or private facilities outside the public school system that, in their judgment, were providing particularly outstanding programs for exceptional children. Six of the nine persons who were requested to serve on the panel agreed to participate and provided us with the information requested.[1]

In selecting the five states in which the study would be conducted, the primary criterion was the number of nominations each state received from the members of the panel. However, it was deemed important that, insofar as possible, the sample should be structured to include states which reflected varying social, economic, and demographic conditions as well as being dispersed geographically. Data were obtained for each state nominated regarding (1) type of state support for special education programs, (2) total population, (3) population age 5-17, (4) population per square mile, (5) per cent of population classified as urban, (6) number of operating school administrative units, (7) public school enrollment, (8) per capita personal income, (9) years of school completed by the adult population, and (10) state and local school revenue as a per cent of total income. In Table 2.1 is provided a listing of the states nominated by one or more members of the panel and a summary of the data with regard to selected characteristics of each state.

After exploring several combinations of states chosen from among the thirteen states which were identified by one or more members of the panel, a tentative sample consisting of California, Florida, New York, Texas, and

TABLE 2.1

DATA EMPLOYED IN SELECTING THE SAMPLE OF STATES

(Rank of State in parentheses)

State	Nominations as Exemplary	Type of State Support for Special Education[a]	Estimated Total Population,7-1-68[b] (in Thousands)	Estimated Population Age 5-17, 7-1-68[b] (in Thousands)	Population per Square Mile, 1968[b]	Per Cent of Population That is Urban, 12-31-67[b]	Number of Basic Operating Administrative Units, 1967-68[c]	Public School Enrollment, Fall, 1968[b] (in thousands)	Per Capita Personal Income, 1967[b]	Years of School Completed by Population Age 25 and Older, 1960[b]	State and Local Revenues as a Per Cent of Total Income, 1967-68[d]	Geographic Region
California	6	Cat.	(1) 19,221	(1) 4,930	(13) 123	(2) 86.0	(46) 1,101	(1) 4,570	(6) 3,665	(2) 12.1	(23) 4.7	Pac. Coast
Wisconsin	5	Cat.	(16) 4,213	(16) 1,175	(24) 77	(27) 64.2	(36) 487	(16) 955	(18) 3,156	(31) 10.4	(23) 4.7	Midwest
Illinois	4	Cat.	(4) 10,974	(6) 2,800	(10) 196	(6) 81.4	(49) 1,310	(6) 2,245	(3) 3,750	(30) 10.5	(43) 3.9	Midwest
Florida	3	Comb.	(9) 6,160	(9) 1,550	(16) 114	(12) 74.0	(10) 67	(9) 1,355	(28) 2,853	(21) 10.9	(30) 4.5	South
Iowa	2	Cat.	(25) 2,748	(26) 739	(29) 49	(36) 55.5	(35) 445	(24) 657	(21) 3,109	(14) 11.3	(23) 4.7	Midwest
Michigan	2	Comb.	(7) 8,740	(7) 2,454	(11) 153	(13) 73.3	(42) 708	(7) 2,124	(12) 3,396	(25) 10.8	(12) 5.1	Midwest
New York	2	Uncl.	(2) 18,113	(2) 4,368	(6) 378	(4) 83.8	(43) 761	(2) 3,411	(2) 3,759	(28) 10.7	(12) 5.1	East
Ohio	2	Comb.	(6) 10,591	(5) 2,834	(9) 259	(14) 73.2	(41) 691	(4) 2,389	(15) 3,213	(21) 10.9	(38) 4.2	Midwest
Texas	2	Gen.	(5) 10,972	(4) 2,882	(33) 42	(8) 77.4	(48) 1,260	(3) 2,613	(32) 2,744	(31) 10.4	(34) 4.3	Southwest

TABLE 2.1 (continued)

DATA EMPLOYED IN SELECTING THE SAMPLE OF STATES
(Rank of State in parentheses)

	Nominations as Exemplary	Type of State Support for Special Education[a]	Estimated Total Population, 7-1-68[b] (in Thousands)	Estimated Population Age 5-17, 7-1-68[b] (in Thousands)	Population per Square Mile, 1968[b]	Per Cent of Population That is Urban, 12-31-67[b]	Number of Basic Operating Administrative Units, 1967-68[c]	Public School Enrollment, Fall, 1968[b] (in Thousands)	Per Capita Personal Income, 1967[b]	Years of School Completed by Population Age 25 and Older, 1960[b]	State and Local Revenues as a Per Cent of Total Income, 1967-68[d]	Georgraphic Region
Colorado	1	Cat.	(30) 2,048	(30) 554	(39) 20	(11) 75.3	(22) 181	(29) 524	(19) 3,135	(2) 12.1	(2) 5.1	Mountain
Connecticut	1	Comb.	(24) 2,959	(24) 748	(4) 604	(9) 76.9	(21) 178	(26) 629	(1) 3,969	(19) 11.0	(30) 4.5	East
Louisiana	1	Comb.	(19) 3,732	(17) 1,085	(20) 83	(24) 64.5	(9) 66	(20) 864	(42) 2,456	(46) 8.8	(7) 5.5	South
Minnesota	1	Cat.	(20) 3,646	(18) 1,030	(31) 46	(26) 64.3	(45) 1,095	(17) 890	(20) 3,116	(25) 10.8	(9) 5.3	Midwest

[a] Based on state support program description in Thomas L. Johns (ed.) *Public School Finance Program, 1968-69.* Washington, D.C.: GPO, 1969.

[b] Research Division National Education Association, *Rankings of the States, 1969* Washington, D.C.: NEA, 1969.

[c] Research Division, National Education Association, *Rankings of the States, 1968.* Washington, D.C.: NEA, 1968.

[d] Committee on Educational Finance, National Education Association, *Financial Status of the Public Schools, 1969.* Washington, D.C.: NEA, 1969.

Wisconsin was selected. Each state included in the sample was nominated by at least two of the six panel members and the five states are geographically dispersed. The five states chosen are all quite heavily populated (ranking between 1 and 16) with correspondingly large school enrollments. They vary considerably, however, in population per square mile (from 42 persons to 378 persons), in per cent of population that is urban (from 64 per cent to 86 per cent), and in per capita personal income (from $2,744 to $3,759). After selection of the tentative sample, the chief state school officer or his designated representative and the head of the state school agency's bureau or department of special education were contacted, and their participation in the project was requested. The state education agency in each of the five states agreed to participate in the study.

Sample of School Districts

Personnel in each of the five state departments of education assisted us in identifying the sample of school districts to be studied in their state. The project director met with the head of the state education department's division of special education in each of the sample states and with any other staff member the department head wished to involve; outlined the objectives and design of the project; and requested the department head and his staff to recommend six to ten school districts (or intermediate agencies) in the state that would be representative of school districts providing what, in their judgment, were high quality, comprehensive educational programs for exceptional children.

It should be noted that the decision to select for the sample only those school districts which were providing reasonably comprehensive programs for exceptional children eliminated from consideration those school districts which were providing high quality educational programs for only two or three categories of exceptionality. Thus, by virtue of the decision, small school districts were practically excluded from consideration. However, in view of the limited time and resources available, it was necessary to select a sample which would yield data on a maximum number of programs at a minimum cost in terms of staff time and travel. The fact that only relatively large districts are able to offer reasonably comprehensive educational services for exceptional children, in itself, carries implications for the organizational arrangements that are needed for such programs.

From the list of school districts suggested by the state department of education's special education staff, a sample consisting of five or six school districts or intermediate agencies was selected for each of the five states. In selecting each sample, an attempt was made to include districts of varying size and varying social, economic, and demographic characteristics. The school districts selected for the sample in each state were:

California

1. El Rancho Unified School District, Pico Rivera
2. Mt. Diablo Unified School District, Concord
3. San Diego Unified School District, San Diego

4. San Juan Unified School District, Carmichael
5. Santa Cruz County Schools, Santa Cruz

Florida

1. Alachua County Schools, Gainesville
2. Dade County Schools, Miami
3. Duval County Schools, Jacksonville
4. Highlands County Schools, Sebring
5. Hillsborough County Schools, Tampa
6. Lee County Schools, Fort Myers

New York

1. Binghamton City School District, Binghamton
2. Board of Cooperative Educational Services No. 1, Erie County
3. Board of Cooperative Educational Services No. 2, Westchester County
4. Rochester City School District, Rochester
5. Schenectady City School District, Schenectady

Texas

1. El Paso Independent School District, El Paso
2. Galena Park Independent School District, Galena Park
3. Lubbock Independent School District, Lubbock
4. North East Independent School District, San Antonio
5. Plano Independent School District, Plano

Wisconsin

1. Jt. School District No. 10, Appleton
2. Jt. School District No. 1, Green Bay
3. Jt. School District No. 8, Madison
4. Milwaukee City School District, Milwaukee
5. Jt. School District No. 1, Oshkosh
6. Jt. School District No. 1, West Bend

The superintendent of each school district included in the sample was contacted by letter by the project director and requested to commit his school district to participation in the study. In the letter the objectives and design of the research were outlined; the criteria and procedure employed in selecting school districts for inclusion in the sample were described; and the data which would be sought and the procedures which would be followed in collecting the data were summarized. Of the twenty-seven school districts contacted, only one (San Diego, California) declined to participate in the study. However, during the course of the study it became apparent that the Highlands County and Hillsborough County, Florida, school systems would not be able to provide us with the necessary data concerning expenditures for the personnel employed in their exceptional child programs, so they also, were dropped from the sample. The general characteristics of the twenty-four school districts which comprised the final sample are shown in Table 2.2.

In the case of Rochester, New York, the school district had undertaken a thorough analysis of the cost of its special programs in 1967-68 in conjunction with the New York State Education Department study referred to in the previous chapter and was reluctant to undertake the task of providing similar data for 1968-69. However, the data available for 1967-68 were sufficiently comprehensive that they could be used to establish cost ratios for each program. Furthermore, no material changes had been made in the programs themselves. Consequently, cost ratios for the Rochester, New York, program were based on fiscal data for the 1967-68 school year rather than for the 1968-69 school year.

The Data Collection Process

Several considerations basic to the objectives of the study were of paramount importance in approaching the task of data collection. First, it was necessary to gather data concerning a specific educational program for a given category of exceptionality. Data concerning the total expenditures for and number of personnel involved in special education programs as a whole would not suffice; it was essential to obtain such data on a program-by-program basis. Second, it was important that programs and program elements be defined with sufficient clarity so that the data obtained from each district would be comparable. Third, it was necessary that programs for each exceptionality be described in terms of the configuration of resources being applied, preferably on the basis of direct observation by members of the research team, in order properly to interpret any cost differentials which might be identified. Finally, from our knowledge of the "real world" we knew that few, if any, school districts in the United States maintain either financial or personnel records on a program basis – despite all the admonitions and testimonials regarding the wonders of planning-programming-budgeting systems which appear in the educational literature. Thus, it was apparent from the outset that the data collection process was likely to be tedious and time-consuming.

Data Instruments

The difficulties experienced by previous researchers who attempted to secure comparable data regarding expenditures for special educational programs from the accounting records maintained by school districts were noted in Chapter I. Consequently, it was decided at the outset to develop data forms which would delineate clearly the programs and program elements with which this project was concerned and to require that the data be cast in this format. This approach required, of course, that the participating school districts provide the data in our format, not their own. This, in turn, meant that the districts' records regarding their programs for exceptional children would need to be searched, and in some cases reconstructed, in order to provide the data that were needed. Recognizing

TABLE 2.2

SELECTED CHARACTERISTICS OF SCHOOL DISTRICTS INCLUDED IN THE FINAL SAMPLE

School District	Type of Area	1968-69 ADM	Profes-sional Staff	Estimated Population	Land Area In Sq. Mi.	Non-Public School En-rollment	Est. In-come Per Household	Value of Taxable Property (000)	Total District Revenue (000)
El Rancho Calif.	Established Suburb	14,421	578	52,900	8	1,100	8,100	260,828	10,836
Mt. Diablo Calif.	Developing Suburb	48,336	2,108	200,000	150	2,625	10-15,000	1,336,692	35,025
San Juan Calif.	Developing Suburb	52,887	2,315	50,000	75	Not Reported	9,700[b]	334,776	17,164
Santa Cruz Calif.	County	212[d]	22[d]	124,000	438		8,400	7,897,814	704
Alachua Fla.	County Medium City	20,371	911	95,000[a]	965[a]	1,500	8,795[b]	351,210[a]	15,873
Dade Fla.	County Large City	232,126	11,109	1,139,500[a]	2,109[a]	Not Reported	7,800[b]	6,438,630[a]	215,017
Duval Fla.	County Large City	122,366	6,712	515,100[a]	804[a]	3,417	8,000[b]	1,715,070[a]	76,134
Lee Fla.	County Small City	18,098	879	83,200[a]	1,005[a]	Not Reported	6,900[b]	520,630[a]	14,723

TABLE 2.2 (continued)

SELECTED CHARACTERISTICS OF SCHOOL DISTRICTS INCLUDED IN THE FINAL SAMPLE

School District	Type of Area	1968-69 ADM	Profes-sional Staff	Estimated Population	Land Area In Sq. Mi.	Non-Public School En-rollment	Est. In-Come Per Household	Value of Taxable Property (000)	Total District Revenue (000)
Binghampton N.Y.	Medium City	11,906	619	67,000	16	2,328	980[b]	359,830	12,441
BOCES, Erie Co., N.Y.	County	1,054[d]	136[d]	116,600	365	Not Reported	9,550[b]	3,378,979	5 717
BOCES, West-chester Co., N.Y.	County	739[d]	129[d]	889,300[b]	Not Reported	Not Reported	14,400[b]	Not Reported	Not Reported
Rochester N.Y.	Large City	44,422	2,721	295,000	36	18,206[c]	9,500[b]	728,347[c]	45,755[c]
Schenectady N.Y.	Medium City	11,570	856	80,000	11	4,600	10,200[b]	312,489	16,675
El Paso Texas	Large City	60,779	2,909	275,000	213	7,432	7,700	1,002,273	26,934
Galena Park Texas	Estab-lished Suburb	11,469	621	40,600	39	316	6,650	199,400	5,718
Lubbock Texas	Medium City	37,608	1,496	167,100	87	1,274	9,050	1,200,000	18,874
Plano Texas	Develop-ing Suburb	4,405	221	20,000	114	None	6,300[b]	80,519	2,290
San Antonio Texas	Develop-ing Suburb	25,100	1,227	113,400	136	3,484	7,600[b]	751,547	14,045

TABLE 2.2 (continued)

SELECTED CHARACTERISTICS OF SCHOOL DISTRICTS INCLUDED IN THE FINAL SAMPLE

School District	Type of Area	1968-69 ADM	Profes-sional Staff	Estimated Population	Land Area In sq. Mi.	Non-Public School Enrollment	Est. Income Per Household	Value of Taxable Property (000)	Total District Revenue (000)
Appleton Wis.	Medium City	13,814	641	60,000	45	5,581	10,150[b]	467,358	7,677
Green Bay Wis.	Medium City	19,833	892	109,000	92	9,172	8,600[b]	730,942	14,033
Madison Wis.	Medium City	33,861	1,746	186,000	62	4,694	9,200[b]	1,375,997	23,346
Milwaukee Wis.	Large City	123,602	5,121	750,000	96	32,500	9,000[b]	4,126,985	124,589
Oshkosh Wis.	Small City	10,508	552	50,000	111	3,019	8,700[b]	379,398	8 006
West Bend Wis.	Small City	4,449	272	33,500	90	2,084	10,300[b]	186,000	4,314

[a] Estimates from FLORIDA STATISTICAL ABSTRACT, 1969, Gainesville, Fla.: Bureau of Economic and Business Research, University of Florida, 1969.

[b] Estimates based on "Survey of Buying Power," SALES MANAGEMENT, June, 1968.

[c] 1967-68

[d] Special education program only.

the amount of work entailed in providing us with the data arrangements were made to reimburse either the school district or the person designated by the district to perform the task as an additional assignment for the time required to secure the needed data.

It was necessary to establish a tentative *a priori* categorization of program elements before data collection forms could be designed. On the basis of our knowledge of school programs generally and special education programs specifically, it was decided that information should be acquired concerning the broad categories of pupils, professional personnel, and supplies and equipment. This decision provided a rationale for the nature of the data forms which would be acquired. Within each of these three broad areas, additional program elements were identified and provided for in various data forms.

In addition to securing data regarding educational programs for the various categories of exceptional children, it also was necessary to secure data regarding the costs associated with programs for normal children if cost ratios were to be computed. To supply the data required to accomplish the objectives of the project, six data forms and an interview/observation protocol had to be developed, field tested and modified before data collection could be initiated. Except for Rochester, New York, where fiscal data for the 1967-68 school year were used, all data obtained were for the most recently completed full school year, 1968-69, and for the 1969 summer session, if one was held. A copy of each of the five data forms is contained in Appendix A.

Form A – Pupil Personnel Inventory – provided for identification of the average daily membership of the district by primary, middle, and secondary grade level in the following program areas: Regular, Pre-Kindergarten, Kindergarten, Compensatory, Vocational-Technical, Exceptional Child, and Other.

In addition, a breakdown of the average daily membership in each category of exceptionality within the Exceptional Child Program was obtained. The categories of exceptionality were identified and defined so as to be compatible with those employed by the U.S. Office of Education in its recent data collection projects.[2] The categories and definitions employed were:

Intellectually gifted – special programs designed specifically to provide educational opportunities for students identified as being academically talented.

Intellectually handicapped – special programs designed specifically for students identified as being mentally retarded and unable, without special help, to benefit from the regular school program.

Auditorily handicapped – special programs designed specifically for students identified as being hard-of-hearing or deaf.

Visually handicapped – special programs designed specifically for students identified as being blind or partially-sighted.

Speech handicapped – special programs designed specifically for students identified as having speech defects. (Language disorders, i.e., problems in the acquisition and use of a language system, were reported in the category Special Learning Disorders.)

Physically handicapped – special programs designed specifically for students identified as having physical disabilities resulting from congenital defects, disease or accident. (Students in special programs because of cardiac conditions, diabetes, allergies, etc. were included here.)

Neurological and/or Mental disorders – special programs designed specifically for students identified as having disabilities which arise from brain injuries or inadequate development of the central nervous system. Common to this category are cerebral palsy, epilepsy, encephalitis, etc.

Emotionally disturbed – special programs designed specifically for students who exhibit severe and frequent maladaptive behavior which seriously reduces their attention and learning.

Special learning disorders – special programs designed specifically for students who exhibit a severe disorder in one or more of the processes involved in understanding or using spoken or written language.

Multiple handicapped – special programs designed specifically for students who suffer from more than one handicap and who have not already been reported in another category.

Form A also provided for securing information concerning the length of the school day and year, the number of pupils transported, and the number of pupils who received homebound/hospital instructional service and the expenditure for this service. Separate reports for the 1968-69 school year and the 1969 summer session were requested.

Form B-1 – Exceptional Program Staff Personnel Inventory – was designed to provide complete information on the number and type of personnel (e.g., administrators, teachers, teacher aides, etc.) assigned to the educational program for each category of exceptionality during the 1968-69 school year. Total prorated salaries of all personnel assigned to the program were obtained, and information was sought regarding the training and experience of teachers assigned to the program.

Form B-2 – Regular Program Staff Personnel Inventory – was developed to provide information parallel to that provided by Form B-1 for staff personnel employed in all other educational programs (Regular, Pre-Kindergarten, Kindergarten, Compensatory, and Vocational-Technical). In addition to expenditures for staff salaries, information was obtained concerning the district's expenditures for fringe benefits, instructional supplies and equipment, operation and maintenance of plant, transportation, food service, debt service and capital outlay (exclusive of new buildings and major remodeling).

Form C – Exceptional Program Materials and Equipment Inventory – was designed to identify the items of material and equipment that were unique to (purchased especially for) the particular program, and to identify the items supplied in greater quantity in the exceptional child programs than in regular programs. The form requested information on special expendable materials, special equipment, special construction features, and square feet of building space allocated to each special program.

Form D – General Information – provided for the identification of various economic and demographic characteristics of each district; the identification of persons responsible for the various exceptional child programs; and the district's sources of revenue.

Form E – Special Transportation Costs – was developed after initial visits to the sample school districts in Wisconsin and New York. It was evident that, while the sample districts would have great difficulty in supplying some of the data we were seeking, most of them maintained rather comprehensive and complete records on pupil transportation. Furthermore, it was apparent that transportation was a major cost factor in programs for some categories of exceptional children. Consequently, Form E was developed to obtain data with regard to the cost of transporting exceptional children.

Data Collection

Visits to the state department of education in each of the sample states were completed during September and October, 1969. Selection of the sample of school districts in each state was completed by December 1, 1969. Visits to each of the school districts included in the final sample were scheduled as follows: Wisconsin – October and November, 1969; New York – October and November, 1969; Texas – December, 1969; California – January and February, 1970; Florida – January and February, 1970. It was deemed essential that one or more members of the research staff visit each school system included in the sample, discuss with the person(s) who would be completing the data forms the information needed and answer any questions concerning them, interview the person(s) responsible for administration of the special education program(s), and visit at least one typical classroom for each category of exceptional child program operated by the sample district.

An interview schedule was developed to guide the interviews with the program director and other special education personnel in each district (See Appendix A). It was considered essential that members of the staff of the project develop a "feel" for the programs for exceptional children offered by each school district if we were to interpret correctly the data regarding the configuration of resources being applied to each program. It was believed that the necessary degree of familiarity could be achieved only through personal interviews with administrative and teaching personnel in each district and through observation of each program in operation in the classroom.

The interview protocol elicited information concerning the number of years the program had been offered, the number of classrooms involved, services provided by community agencies, the procedures and criteria employed in identifying and selecting pupils, the objectives of the program and the instructional materials employed, the perceived strengths of the program, any unique services provided in the program, and provisions for evaluation of the program and follow-up of students completing the program.

A protocol to guide classroom observations also was developed. The observer's attention was directed to such items as the special materials and/or equipment provided, the number and approximate age span of pupils in the classroom, the number of persons providing classroom services, etc. Using the information obtained through these interviews and observations, a general description of each program observed in each of the twenty-four school districts was prepared. These program descriptions will be found in Appendix B. They provided a basis for understanding and interpreting the differences in program costs and cost differentials which are reported in Chapter III.

Private and Residential Schools

The proposal for this research indicated that an attempt would be made to secure data with regard to the cost of exceptional child programs provided by private and/or residential schools. Accordingly, members of the panel of authorities who nominated states for inclusion in the sample also were requested to identify private or residential schools (without regard to the state in which the school was located) that, in their judgment, were providing high quality programs. The special education staff in the state department of education in each of the five sample states also was requested to identify any outstanding private or residential schools within their state.

The results of this effort to identify private and residential schools considered to be providing outstanding programs for exceptional children were disappointing for relatively little overlap in nominations was obtained. Exploratory contact with a few private schools mentioned by two or more sources produced either flat refusals to participate in the study or a citation of the reasons why they would prefer not to participate. Basically, administrators of the private schools that were contacted believed that they would be unable (or by implication, unwilling) to provide the necessary data. In view of the reluctance to provide the type of data needed and the time constraints within which the project was required to operate, it was necessary to abandon the effort to obtain data from a sample of private schools.

It was possible to identify a small sample of state-operated residential schools for exceptional children (administered by the state department of education) which were willing to provide data concerning their operation. Such information as could be obtained is reported in Chapter III.

Analysis of the Data

The fact that this study involved careful and intensive case studies of programs for exceptional children in twenty-four school systems necessitated that the analysis of the data consist essentially of descriptions of the programs – both narrative and statistical. Detailed narrative descriptions of each program will be found in Appendix B; summary descriptive information and statistical data with regard to resource configurations and cost ratios are presented in Chapter III.

The school districts which comprised the sample for this study were not randomly chosen. Rather, they were chosen on the basis of their reputation for providing high quality educational programs for exceptional children. No claim can be made that the sample is representative of all school districts for obviously it is not! Hopefully, it is representative of those relatively few school districts in the United States which are providing generally comprehensive and reasonably adequate educational programs for exceptional children.

The nature of the sample precluded the application of any type of inferential statistical treatment. Descriptive statistical analyses were performed, however, and such items of information as mean and median expenditures for various program elements will be reported. It should further be noted that generalizations from this sample are unwarranted, except insofar as the sample may be viewed as representing the "best current practice" in public school programs for exceptional children.

The major task involved in analysis of the data obtained from the data forms was reduction of the data in terms of programs and program elements. Computation of the per pupil cost of regular programs provided base line data. The costs associated with each special program were then computed and compared with the cost of the regular program to obtain cost differentials for each program in each district. Because treatment of the data involved a large amount of unique data from a limited number of districts, it was more efficient to process the data manually using a desk calculator than it was to write computer programs.

Inspection of the returned data forms invariably revealed several missing items or items which needed clarification. Missing data were obtained through follow-up correspondence and telephone calls. As expected, the school districts in the sample did not maintain their expenditure and personnel records on a program basis. In the case of Dade County, Florida, Rochester, New York, and Milwaukee, Wisconsin, most of the basic data were ferreted out by members of the project staff because the school systems, as a result of staffing shortages, had no personnel to whom they could assign responsibility for obtaining the data. In some instances it was possible to double check the data reported by the school district against published reports of the state department of education or official school district reports on file with the state department of education. In the few cases where discrepancies were noted, they were resolved by follow-up letters or telephone calls.

Procedures Employed in Developing Per Pupil Costs

The first step in the data reduction process was to select certain expenditure components which would best reflect the inputs necessary to support regular educational programs and educational programs for exceptional children. The expenditure components which were selected as being representative of both types of programs, as well as satisfying the necessary criterion of being amenable to comparison, will be described in the following sections.

Administration

Data for this component of the regular program were obtained from Form B-2, line 6a. Data for each exceptional program category were taken from the appropriate page in Form B-1. The assumption was made that all pupils in all programs received the same basic administrative services and that any administrative costs reported for an exceptional program were in addition to the basic administrative services. This assumption, of course, resulted in all cost differentials for administration of exceptional programs being 1.0 or greater. The raw data requested in Form B-2 included all school district employees other than those assigned to programs designated as pre-kindergarten, kindergarten, compensatory, vocational/technical, or exceptional. Therefore, to derive a per pupil cost for administration of regular programs, the total expenditure figure was divided by the total enrollment in regular programs.

Clerical and Secretarial

Expenditures for this component of the regular program were taken from Form B-2, line 8. The assumption that all students received the same basic clerical and secretarial services was made, and any clerical or secretarial services reported in connection with a special program on the appropriate page on Form B-1 were considered to be an additional expenditure, again resulting in a cost differential of 1.0 or greater. The total per pupil cost for clerical and secretarial services in the regular program was divided by the total enrollment of the district since it was assumed that a district would report its total expenditure for secretarial and clerical salaries for all programs except those for exceptional children as per the directions.

Food Services

Form B-2, line 10, and line 21 provided the data for computing the total cost of food services. The total cost was divided by total school district enrollment on the assumption that food services generally are available to any student enrolled in the district. Any reported expenditure for food services for the various categories of exceptional children were treated as additional expenditures for this component.

Fringe Benefits for Certificated Staff

The average cost of fringe benefits per certificated staff member (which included insurance, retirement, social security, etc. and excluded contributions made by the employee) was obtained from Form B-2, line 14. The average cost per staff member was multiplied by the total number of certificated staff members assigned to the regular program, i.e., teachers, administrators, guidance counselors, etc., and divided by the total enrollment in the regular program. For this component in each exceptional program, the total cost was obtained by multiplying the average cost by the total number of certificated staff members assigned to the particular exceptional program and dividing by the total enrollment in that program.

Fringe Benefits for Non-Certificated Staff

From B-2, line 16, provided the average fringe benefit cost per non-academic staff member, including insurance, retirement, social security, etc., and excluding the contributions of employees. This figure, multiplied by the total FTE employees (lines 7-12 of Form B-2), provided the data for this expenditure component. The per pupil cost for non-certificated staff fringe benefits for the regular program was obtained by dividing this product by the total enrollment of the school district since the districts generally did not report such employees separately for the exceptional programs. The per pupil cost for this expenditure component for exceptional programs was obtained by adding to the per pupil cost for the regular program the per pupil expenditure for fringe benefits for any non-certificated staff members who specifically were assigned to an exceptional program. Here again, a cost differential could not be less than 1.0.

Guidance and Counseling

Costs for this component of the regular program were obtained from Form B-2, line 6b. Per pupil costs were derived by dividing this figure by the enrollment in the regular program. Again, it was assumed that all pupils received basic guidance and counseling services. The per pupil costs of any reported expenditures for guidance and counseling in exceptional programs were computed and added to the per pupil cost of guidance and counseling computed for regular programs.

Health Services

Health services for the regular program consisted of the total expenditures for doctors and nurses reported in Form B-2, line 7. This figure was divided by the total enrollment in the regular program to derive a per pupil cost. Expenditures reported in this category for any exceptional program were treated as additional expenditures, and the same process was followed in determining per pupil costs and cost differentials in this expenditure category as was employed in the guidance and counseling category.

Instructional Supplies and Equipment

Form B-2, line 17, provided data concerning the total expenditures for instructional supplies and equipment for the regular program exclusive of major capital equipment. This figure, divided by the total enrollment in the regular program, provided the regular program per pupil cost. It was apparent from our field observations and interviews with program personnel that the classrooms used for most special educational programs were equipped in a manner similar to regular program classrooms. Thus, to determine the per pupil cost of instructional supplies and equipment for each exceptional program the per pupil cost for this component in regular programs was multiplied by the total enrollment in each exceptional program. This amount was then added to the total cost of any special expendable materials and special equipment reported on Form C. This sum was then divided by the total enrollment in each exceptional program to determine the per pupil cost for instructional supplies and equipment in that program.

Operation and Maintenance

Form B-2, line 18 which provided data on total expenditures for maintenance exclusive of salaries; Form B-2, line 19, which provided data on total expenditures for operation of the plant exclusive of salaries; and Form B-2, line 9, which provided data on the total prorated salaries for employees involved in operation and maintenance of school plants, furnished the basic data for computing the total expenditure for this component. The per pupil expenditure for the regular program was determined by dividing the total cost of operation and maintenance by the total enrollment of the school district. In computing the per pupil cost of operation and maintenance for each category of exceptional program, it was assumed that each pupil in the regular program occupied thirty square feet of space. The per pupil cost of operation and maintenance for each of the exceptional programs was based on the reported number of square feet allocated each pupil in that program. The cost differential was determined by dividing the number of square feet allocated each pupil in the exceptional program by thirty and multiplying this index by the per pupil cost of operation and maintenance for the regular program.

Other Costs of Current Operation

The total cost for this expenditure component was the sum of expenditures for costs of current operation not reported elsewhere (Form B-2, line 24), total salary payments to persons on leave of absence and to substitutes (Form B-2, line 15), and the cost of all other employees (Form B-2, line 12). The per pupil cost for this component was determined by dividing this sum by the total enrollment of the school district. The per pupil cost for regular programs was determined by dividing the total cost by the total enrollment in the regular program.

Other Supportive Services

Data for this component of the regular program were obtained from Form B-2, lines 6c-6f. For exceptional programs, data for this component were obtained from Form B-1 and included entries in the categories of psychologists, psychiatrists, social workers, psychometrists, therapists and any other specialists. In this category, as in several of those previously mentioned, it was assumed that all pupils received the basic supportive services provided on a district-wide basis, and that any supportive services reported for exceptional programs were provided in addition to those provided on a district-wide basis. Thus, all cost differentials for this category were 1.0 or greater.

Teachers

This component consisted exclusively of teachers' salaries. The per pupil cost in the regular program was determined by dividing the total salary paid to teachers assigned to the regular program (Form B-2) by the total enrollment in the regular program. For exceptional programs, data for this component were obtained from Form B-1 and included the total salary plus any supplement or incentive paid these teachers.

Teacher Aides

For regular programs, data for this component were taken from Form B-2, line 5. The per pupil cost was determined by dividing the total cost by the total enrollment in the regular program. Data for exceptional programs were obtained from Form B-1. Per pupil cost was derived by dividing the total cost for each special program by the total enrollment in that program. (It should be noted that this procedure tends to distort the cost differential for teacher aides in those instances where teacher aides were not utilized in regular programs but were utilized in exceptional programs.)

Capital Outlay

Data for this expenditure component were taken from Form B-2, line 23, and represent total expenditures for capital outlay exclusive of new buildings and major remodeling. In the absence of data to the contrary, this component was treated as a constant and reflected no cost differentials. The total expenditure was divided by the total enrollment in the school district to obtain the cost per pupil.

Debt Service

This component also was treated as a constant throughout all programs, both regular and exceptional. The per pupil cost was determined by dividing the total expenditure for debt service (Form B-2, line 22) by the total enrollment of the district.

Transportation

The cost of transportation for the regular program was determined by summing salaries of employees for the transportation of pupils in regular programs (Form B-2, line 11) and total transportation costs exclusive of salaries (Form B-2, line 20). This figure was divided by the total enrollment in the regular program to determine the per pupil cost for the regular program. The cost per pupil transported also was computed by dividing the total cost of transportation by the total number of pupils transported minus the number of pupils in exceptional programs who were transported at the district expense. Data with regard to the cost of transporting children in each of the programs for exceptional children were reported by the districts on a separate form and were taken directly from that form.

Speech Handicapped

Cost factors for some components of programs for speech handicapped children were computed in a somewhat different manner. For the operation and maintenance component, the total number of square feet allocated to the speech handicapped program was ascertained and divided by thirty to determine how many pupil units of space were assigned exclusively to this program. The number of pupil units of space multiplied by the cost per pupil of operation and maintenance provided an estimate of the expenditure for operation and maintenance which should be assigned to this program. Although speech therapists invariably were reported as teachers, and a per pupil-teacher ratio was determined on this basis, we observed that they generally functioned primarily in a therapeutic capacity. Consequently, in computing cost differentials the salaries and incentive supplements paid to speech therapists were included in the "other supportive services" component. Obviously, in all speech therapy programs the expenditure component "other supportive services" will exhibit a rather high cost differential.

Treatment of Missing Data Concerning Regular Programs

In several instances it was not possible to obtain detailed data on expenditures for regular programs. This was true, for example, in the case of the New York Boards of Cooperative Educational Services and for some of the county school systems included in the study since they operated only programs for exceptional children. In a few other cases the time and expense which would have been required to obtain detailed expenditure data on regular programs could not be justified, especially where data with regard to the total expenditure per pupil for current operation were readily available. For those agencies which did not operate regular educational programs, the average cost per pupil for current operation of regular programs by school districts in the area served by the agency was obtained and used as a basis for comparison. Thus, in all cases the total cost per pupil for current operation was available for comparison and computation of cost differentials. In some cases, however, detailed data with regard to the various expenditure components which make up "current operation" could not be obtained.

Presentation of Data

To provide concise descriptions of the sources of cost differentials in educational programs for exceptional children, the expenditure components discussed above were grouped in accordance with the Expenditure Index suggested by Buchmiller[3] based on his principal component analysis of line-term expenditures reported by 371 Wisconsin K-12 school districts for the 1967-68 school year. Buchmiller's recommended broad expenditure categories were Management, Instruction, Instructional Support, Institutional Operation, Acquisition of Facilities, and Equipment and Services. Complete data on total expenditure and expenditure per pupil in each program for each of the twenty-four sample school districts will be found in Appendix C. In addition to detailed and summarized cost data on the components of current operation, data are provided with regard to cost of transportation per pupil transported and cost of acquisition of facilities and equipment (capital outlay and debt service). Also, the teacher-pupil ratio in each program and square feet of classroom space per pupil in each program are reported.

FOOTNOTES

1. The six persons who provided recommendations for the sample of states were John W. Kidd, Assistant Superintendent, Department of the Mentally Retarded, Special School District of St. Louis County, Missouri; Hans A. Mayr, Superintendent, El Dorado County Office of Education, Placerville, California; John W. Melcher, Assistant Superintendent, Wisconsin Department of Public Instruction and President, Council for Exceptional Children; Maynard C. Reynolds, Chairman, Department of Special Education, University of Minnesota; Harvey A. Stevens, Superintendent, Central Wisconsin Colony and Training School, Madison, Wisconsin; and Frederick J. Weintraub, Assistant Executive Secretary, Council for Exceptional Children, Washington, D.C.

2. See, for example, SCHOOL STAFFING SURVEY INSTRUCTIONS AND DEFINITIONS, FORM A, OE No: 2313, Washington, D.C.: U.S. Office of Education, National Center for Educational Statistics, Spring, 1969.

3. Archie A. Buchmiller, "Analysis of Expenditures in Wisconsin School Districts for the Development of An Expenditure Index" (unpublished Ph.D. dissertation, University of Wisconsin, 1970), pp. 180-90.

CHAPTER III

PROGRAMS AND PROGRAM COSTS IN PUBLIC SCHOOL DISTRICTS AND RESIDENTIAL SCHOOLS

The purpose of this chapter is to present the findings resulting from analysis of the data obtained from the sample of school districts and residential schools. The analyses were based upon three primary data sources: (1) the interviews with persons (teachers and administrators) directly involved in providing services for exceptional children, (2) materials produced by school districts describing the needs, objectives and activities of their programs for exceptional children, and (3) the project-designed data set soliciting information relative to enrollments, staffing, financing and other resource inputs relating to programs for exceptional children provided by the sample districts.

The categories of programs investigated were defined *a posteriori* from the literature. However, it soon became apparent that educational planning and programming is often not confined by a medical definition of a particular malady. Operationally, several categories of exceptional children are often combined into one target population for purposes of educational planning and programming. This is not uncommon among educational institutions and was anticipated *a priori* given our criteria for selecting sample school districts which were judged to be on the "cutting edge" in providing programs for exceptional children.

General Concepts

Before moving to a discussion of each program category, a brief discussion of the concepts employed in our analysis of programs is necessary, particularly with regard to planning, programming, and cost differentials.

Planning

For the purposes of this study, program planning associated with each category of exceptionality was limited to identifying a taxonomy of program objectives. Other planning components will be identified as they were observed in an operational context. These planning components include programming, facilities, evaluating, and financing.

Efforts by state departments of education to require local school districts to submit planning documents to the state agency for approval seem to be gaining momentum. One of the most comprehensive planning models reviewed was the one in operation in the State of Florida. Each Florida school district must submit for state department approval procedures which:

1. Identify the need for special education programs and outline administrative responsibilities of the (school district's) staff to meet these needs.

2. Outline provisions for the identification, evaluation, and placement or referral (of exceptional children) to appropriate instructional programs and/or services.

3. Describe provisions for the organization, administration, supervision, and financing of special education facilities.

4. Describe provisions for the orderly development of a total sequential program including curriculum, staffing, and housing, within a reasonable period of time.[1]

Comprehensive laws and regulations relating to education and health services for exceptional children are provided by the State of California.[2] Especially noteworthy is the requirement that each child assigned to a program for exceptional children must be re-evaluated each year and a recommendation made for continuation in the present program, assignment to a different special program, or termination of the special program assignment and return of the child to a regular program. The regulations further specify the composition of the review committee and the minimum information that must be available to the committee upon which to base its decision. Although this procedure has been operational for only one year, at least two significant problems were identified. One is the problem of scheduling time for the review committee (consisting of teachers, psychologists, administrators, physicians and social workers) to re-evaluate *each* child once the extensive background data has been assembled. The other is the cost involved in review committee meetings. No provision was made for the state to share in the cost of teacher substitutes or consulting fees for physicians and other professionals who comprise the membership of the committee. One would expect that these problems will be voiced during the next session of the California Legislature.

Programming

For the purposes of this study, educational programming was confined to the operational specifications encompassing organizational configuration, student identification, program activities, and facilities. Organizational configuration includes mandated, idealized, and observed pupil-teacher ratios; grade or age level of classes; and the district's philosophy with regard to the fusion of exceptional children with children in the regular program. Student identification includes identifying pupils who are in need of a special program, processing the child from a regular program to a special program, and the re-evaluation and program termination procedures. Program activities include behavior modification treatments and experiential offerings. Facilities include instructional space and specialized equipment and supplies. Program evaluation included both assessment of individual students and program quality measures. However, program quality measures and procedures were found to be virtually nonexistent.

Cost Differentials

The California study cited in Chapter I adequately demonstrates the diversity of technique which characterizes public school cost accounting. However, the existence of cost accounting by program is probably as rare as it is diverse. The conceptual differences among those who provide *ad hoc* cost analyses by program seem to polarize around those who allocate only direct costs to programs and those who supplement the direct costs with an array of indirect costs. The latter conceptualization seems to be more popular at this time, although it may be that its advocates are providing most of the cost analyses that are being done within educational institutions.

We are of the opinion that the allocation of indirect costs to specific programs for the purpose of cost analyses is a viable concept. Therefore, this study was designed in such a manner that indirect cost accounting techniques could be applied. Program cost differences are time-bound, i.e., last year's cost may reflect little about this year's program. Recognizing that cost differences are time-bound, and yet desiring to provide decision makers with relevant cost data for projective purposes, we developed a cost index for each special program category. The cost index is not time-bound relative to the normative and changing demands upon a school district's resources. The cost index was computed by dividing the cost per pupil of a special program by the cost per pupil of the regular educational program provided by the district.

The normative funding practices of a particular school district would not cause the cost index to vary significantly over time. However, a significant change in the district's staffing pattern (e.g., lower pupil-teacher ratios, employment of teacher aides, etc.) could lead to a significant change in the cost index. One technique for adjusting divergent resource allocations to a special program is to compute a mean (average) cost index. However, this statistic is more relevant to a normally distributed population. Thus, we also determined the median cost index for each special program, since the median may reflect more adequately the normative resource allocation practices of school districts providing high quality programs for exceptional children. Also, an analysis of the object-of-expenditures which contributed to the cost differentials will be explicated for each program.

Finally, it would be naive to assume that all resources brought to bear upon a particular educational program could be ferreted out of a school district's financial records. Other non-budgeted resources often influence educational programming; this seems to be especially true among programs for exceptional children. For example, traditional school accounting records do not reflect the cost of a special hydraulic lift for loading children in wheelchairs into a modified school bus (approximate cost $1,300) which was donated to a Wisconsin school district by a local industrialist; or the one night's attendance receipts donated to a Florida school district's special education program by the owner of a dog-racing track. Our visitations to each district in the sample revealed these and other non-budgeted resources which augmented special education programs.

SECTION A

PUBLIC SCHOOL PROGRAMS FOR EXCEPTIONAL CHILDREN

In this section of the report data and findings will be reported relative to educational programs for exceptional children provided by the public school districts or intermediate agencies included in our sample.

Programs for the Intellectually Gifted

For the purposes of this research, a precise definition of the intellectually gifted child was not attempted. The concept of giftedness was limited to the intellectually gifted child; therefore we did not investigate other dimensions of giftedness among school-age populations. Generally, this study was able to identify very little which was being done vis-a-vis special programs for the gifted. However, Project Talent has contributed significantly toward special recognition of the needs of gifted children and especially note-worthy is the effort by California to provide for the special educational needs of intellectually gifted children.

Solicitation of program objectives specifically designed for the intellectually gifted child was not rewarding in terms of volume received, but operationally, at least, the specification of instructional intent is a relatively new practice on the educational scene. Those statements from the literature which were reviewed and the few received from operating school districts did not differ much from the broad philosophical goals, couched in terms of the concept of equal educational opportunity, which have pervaded educational literature since the turn of the century. However, if one is willing to accept the notion that perceptual congruence among school administrators, teachers, counselors, and parents relative to the educational needs of the gifted qualitatively establishes social demand for instructional services, then Kincaid offers some additional insights as to why objectives of programs for the gifted seem to be poorly articulated. He found congruence on the following points: (a) the goals for the gifted do not differ materially from those for average pupils; (b) gifted children customarily attain most educational objectives at an earlier age than do average children; and (c) gifted children attain most objectives to a greater extent than do average children.[3] The following six statements provided by one school district in the sample (one of only two districts which responded to our request for a statement of objectives) were adopted in 1958 and are currently being revised:

1. To present to every student adequate instruction in the use of those skills necessary to maintain normal adjustment to everyday existence.
2. To extend knowledge through individual degrees of understanding as far and as fast as individual differences permit.
3. To help each child in and out of school to understand his responsibility to himself, to his group, to his way of life, and to his society so that he may regulate his own behavior in a manner that will give him personal satisfaction as well as social approval.
4. To enable the gifted children to realize their own potentialities and to utilize this by acquaintance with a wide scope of interest from which special interests may be developed.
5. To provide facilities, within the limits of the district's financial ability, such as personnel, equipment, and housing, to make the above four objectives possible.
6. To allow gifted children to proceed vertically (beyond grade level) as well as to provide adequate horizontal (grade-level) instruction.

The Rochester Mayor Achievement Program provides the most comprehensive example we encountered of a developed and maturing special program, while the State of California affords an excellent overview of enrichment programs for intellectually gifted students. While the documents obtained from Rochester were designed as curriculum guides, the California material is directed toward areas for program development by curriculum specialists and/or teachers.[4] There seem to exist two distinct (and perhaps parallel) approaches to program development for intellectually gifted children – enrichment and acceleration.

It is generally recognized that special programs for intellectually gifted children are unnecessary prior to the fourth or fifth year of the child's formal schooling. Various programming configurations were identified as being adequate to provide services for intellectually gifted children. These included:

1. Students are placed in classes more advanced than those of their chronological age group and receive special instruction supplementary to the regular (advanced) classroom to assist their accommodating the advanced work.
2. Students remain in regular classes but participate in supplementary educational activities planned to enrich their regular program experiences. Special resource teachers and/or advanced curricular materials are provided.
3. Students are provided additional instruction by either a special tutor or through locally administered correspondence or programmed materials.
4. Students regularly participate in planned special counseling or instructional activities provided outside the regular school day.
5. High school students attend classes part-time at a local junior college or college to receive advanced instruction. Some students may terminate their high school attendance and enroll full-time in a college or university prior to receiving a high school diploma.
6. Provisions are often made for other program configurations, subject to the approval of the Superintendent.

Idealized pupil-teacher ratios for enrichment and advanced placement programs, as expressed by teachers, were twenty-two secondary pupils per teacher and fifteen elementary pupils per teacher. Advanced placement programs in science and mathematics seemed to be well established at the secondary level in the few school districts which made specific provisions for the intellectually gifted pupil. However, one district which was providing no special programs reported a potential enrollment of 2,400 gifted students. Another district reported a potential enrollment of 1,988 gifted students in a program being served by four part-time teachers. A third district reported serving eight gifted students out of a potential target population of 190 and although five priority levels for future program development in the area of exceptional children had been established, they did not include a plan to accomodate needs of the gifted child.

The California model for identifying the intellectually gifted child incorporates all of the elements we found in school districts outside California. The model provides that identification shall be based upon a study by a committee of all available evidence relative to a pupil's general intellectual and scholastic capacity. The committee must consist of a school principal, a teacher familiar with the pupil's work, a qualified school psychologist, and a designated district employee responsible for making the identification (in practice, this person has been the director of the programs for exceptional children).

The evidence to be considered by the committee includes: (1) a score at or above the 98th percentile on a full scale individual intelligence test such as the Revised Stanford-Binet Scale, Form L-M; (2) a standardized test score on one or more of the following (a) reading achievement, (b) arithmetic achievement, (c) science achievement, (d) social science achievement; and (3) recommendations by teachers, psychologists, administrators, and supervisors who are familiar with the demonstrated ability or potential of the candidates.

The processing of a gifted pupil into a special program includes: identification, recommendation by the screening committee, written consent of the parent or guardian, and scheduling by school district personnel. A similar process is used to terminate a student who is participating in a program for the intellectually gifted.

No special facilities were found to be provided for programs designed specifically for intellectually gifted pupils. However, the use of more complex scientific equipment and advanced curricular materials was found to be normative for this program.

Program evaluation appeared to consist almost entirely of introspective revelation by teachers. One "teacher's check list" was identified. Student evaluation rests largely upon teacher-developed designs and instrumentation.

In Table 3.1 we identify the per pupil expenditure for those programs included in this program which were designed to serve the intellectually gifted pupil. We further identify the per pupil expenditure for the regular program in each district and the computed cost index for the special program (obtained by dividing the cost per pupil of the special program by the cost per pupil of the regular program).

TABLE 3.1

PER PUPIL COST INDICES OF THE PROGRAM FOR THE INTELLECTUALLY GIFTED

District	A Exceptional Program Cost Per Pupil	B Regular Program Cost Per Pupil	C Differential (A - B)	D Cost Index (A/B)
G	$ 809	$ 795	$ 14	1.02
K	834	653	181	1.28
N	734	734	0	1.00
Q	548	480	68	1.14
V	872	734	138	1.19
N=5	ΣX=3,797	ΣX=3,396	ΣX=401	ΣX=5.63
MEAN	$ 759	$ 679	$ 80	1.13
MEDIAN	$ 809	$ 734	$ 68	1.14

The school district in our sample which provided the highest per pupil input in dollars was not making the greatest relative dollar effort for programs for the intellectually gifted. Thus, although District V expended $872 per pupil for its special program, the cost index was only 1.19 greater than the amount the district spent for its regular program. District K, on the other hand, was spending $834 per pupil in the special program, which represented 1.28 of the per pupil expenditure for the regular program. The cost index can be interpreted as a measure of the propensity of a given school district to provide resources for a special program relative to the district's propensity to provide resources for the regular program. Thus, District K spent 28 per cent more per intellectually gifted pupil than it did for pupils in the regular program, while District N reported spending an equal amount on pupils in its special and regular programs. The MEAN cost index for the five districts which provided data on programs for the intellectually gifted indicates that, on the average, those districts provided 13 percent more resources (in dollars) for each pupil in their intellectually gifted program than for each pupil in their regular program. The MEDIAN cost index of 1.14 suggests that for these five districts the expenditure trend is slightly above the MEAN. However, in view of the small sample, we are reluctant to make any generalizations about the relationships.

Table 3.2 provides an analysis of expenditures by function for the school districts with the highest, median, and lowest per pupil cost index for the program for intellectually gifted pupils. The highest expenditure district varied dramatically in its expenditure for teachers' salaries when compared to the median and low expenditure districts. Salary differences, when based on a per pupil cost index, may reflect small class sizes, supplements to special teachers, or a preponderance of teachers in the program who have advanced degrees or extensive experience and thus are higher on the district's salary schedule than is the average teacher in the regular program. Most likely, the differences reflect a combination of these factors. It is well to recall that the cost indices do not reflect differences in costs which are related to geographic location, but that the per pupil expenditure may reflect differences associated with the economy of the area in which the school district is located.

Other non-quantifiable instructional resources included such items as gifted pupils working part-time in local industrial research laboratories, gifts of expensive supplies and equipment by local industries, and gratis lectures by community professionals on advanced topics of interest to the intellectually gifted.

Programs for the Intellectually Handicapped

Programs for the intellectually handicapped were broadly defined to include special programs designed specifically for pupils identified as being mentally retarded and unable, without special help, to benefit from the regular school program. Very early in the course of this investigation it became apparent that significant differences existed relative to the educational programming of Educable Mentally Retarded (EMR) and Trainable Mentally Retarded (TMR) pupils. Accordingly, the program analysis and data gathering techniques were bifurcated for the intellectually handicapped category to provide more relevant information in accord with contemporary educational programming. The analyses of these two programs are presented separately.

TABLE 3.2

EXPENDITURE BY FUNCTION FOR SCHOOL DISTRICTS WITH HIGHEST, MEDIAN AND LOWEST PER PUPIL EXPENDITURE RATIOS FOR THE INTELLECTUALLY GIFTED

	School District					
	K (Highest)		Q (Median)		N (Lowest)	
Expenditure Category	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index
Management						
Administration	$ 76	1.31	$ 72	2.99	$ 40	1.00
Clerical & Secretarial	33	1.10	18	1.00	34	1.00
Instruction						
Teachers	556	1.40	281	1.00	320	1.00
Teacher Aides	---	----	4	1.00	1	1.00
Instructional Support						
Supplies & Equipment	24	1.14	15	1.05	19	1.00
Guidance & Counseling	20	1.00	9	1.00	8	1.00
Other	11	1.00	13	1.00	3	1.00
Institutional Operations						
Operation & Maintenance	63	1.00	67	1.39	54	1.00
Fringe Benefits	37	1.00	---	----	43	1.00
Other	8	1.00	49	1.00	168	1.00
Services						
Health	1	1.00	5	1.00	2	1.00
Food	1	1.00	14	1.00	30	1.00
Transportation						
Cost/Pupil in ADM	4	1.00	1	1.00	12	1.00
TOTAL—Current Operation	$ 834	1.28	$ 548	1.14	$ 734	1.00
Transportation						
Cost/Pupil Transported	$ 37	1.00	$ 23	1.00	$ 25	1.00
Capital Outlay/ADM	36	1.00	15	1.00	28	1.00
Debt Service/ADM	25	1.00	21	1.00	43	1.00
Teacher-Pupil Ratio	1:17.2	----	NR	----	NR	----
Sq. Ft. Classroom Space Per Pupil	NR	----	42	----	NR	----

NR - Not Reported

Educable Mentally Retarded

Children whose intelligence quotients are within the range of 50 to 70 are generally considered to comprise the educable mentally retarded population. Florida uses an IQ range of 55 to 75 for student identification; New York provides that the intellectual capacity of potential candidates for the EMR program shall fall lower than 1.5 standard deviations below the mean of the general population and, in the considered opinion of the placement committee, the child cannot benefit from the regular program but may be expected to benefit from a special educational program. (The New York criteria for the Trainable Mentally Retarded sets the lower .intelligence limit for EMR identification and are presented with the TMR program).

The objectives of programs for educable mentally retarded pupils emphasize development of social adjustment and relationships, physical competencies, desirable health habits, and the attainment of vocational proficiency. The rationale seems to be that the operational objectives of the program will approximate the objectives of the regular program but will be pitched at a lower level--especially relative to academic competencies. School districts reported that considerable merit lay in organizing each academic area in a developmental sequence consistent with the characteristics of educable mentally retarded children.

The curriculum is implemented through concrete-tactile activities which develop cognitive, affective and conative competencies. The program assumes a heavy vocational orientation at the secondary level which typically is manifested in a work-study configuration. The purpose of the work-study program is to provide retarded pupils (over 16 years of age) with employment experience as an integral part of their secondary school curriculum. The thrust of the work-study program is directed toward developing attitudes, skills, and habits which will benefit the youth in a future work situation.

Programs for elementary age EMR students are not unlike those observed in high quality regular elementary programs. Specifying expected behaviors and developing lists of activities designed to bring about those behaviors seem to pervade existing program development ideology.

The work-study program for secondary students is generally organized into one-half day of study and one-half day of on-the-job work experience. Some school districts provide both morning and afternoon work experience opportunites which tends to expand the number of employment opportunities by more than a factor of two.

The idealized pupil-teacher ratios, as expressed by teachers, are given in Table 3.3. The statistical mode of all responses is presented for each of the four programming levels.

New York regulations require that classes for EMR students at the elementary level shall not exceed fifteen and at the secondary level shall not exceed eighteen. Further, each class should be organized so that the ages of participating students will not vary more than three years. The observed pupil-teacher ratios in all districts in all states visited tended to conform with the New York class size regulations.

There seemed to be little attempt to integrate EMR pupils into regular classes at the elementary school level. Quite the contrary. We noted a trend toward separating the EMR pupils into special instructional units. However, fusion was practiced to a greater extent at the secondary level, where it was difficult to identify special classes for EMR pupils except for the special work-study programs identified above. In small school districts the work-study programs seem to provide for a mixture of both EMR and compensatory pupils.

Student identification for the EMR program normally begins at grade one, although some districts reported tentative identification at the kindergarten level. Criteria for admission, re-evaluation, and discharge include assessing each candidate relative to the following dimensions:

1. Physical – the child must be toilet trained, ambulatory to the extent that no undue risk to himself or others exists when engaged in daily activities, and must possess health conditions generally required to benefit from special class activities.

2. Psychological – the child must be able to communicate his wants and to understand simple directions, be socially and emotionally developed to the extent that he does not present an undue risk to himself or the physical well-being of others, and be able to benefit from the special learning situations provided by the program.

The assessment of the above dimensions provides for a case-study of each candidate which is presented to a placement committee. Initiation of a case-study may be proposed by a special class teacher, the building principal, a district psychologist, or a member of the placement committee. The following documents are made available to the placement committee:

1. recent medical examination,
2. educational evaluation by teacher and/or school counselor,
3. individual psychological examination, and
4. parent application or authorization for placement.

Although some states require an annual re-evaluation of each student, normative practice among school districts seems to provide for individual re-evaluation of EMR pupils every two or three years.

TABLE 3.3

IDEALIZED NUMBER OF PUPILS PER TEACHER IN THE EMR PROGRAM

Level	Ages	Number of Pupils
Primary	6 - 9	9
Intermediate	10 - 12	11
Middle (Junior High)	13 - 15	14
Secondary	16 - 19	17

Facilities provided for EMR programs are similar to those provided for regular programs. Most EMR programs we observed were in classrooms located in regular schools. The principal variance we observed was the greater amount of space provided per pupil, brought about primarily by lower pupil-teacher ratios operating in EMR classes using classrooms which were the same size as those used in regular programs.[5] Some differences were noted in the availability of supplies and equipment between the EMR and regular programs. Less variance was noted in kind than in quantity, i.e., both EMR and regular programs use similar equipment (e.g., overhead projectors) but more often than not, the EMR classroom had equipment available on a permanent basis whereas the regular classrooms were sharing the more costly equipment with two or more other classrooms. Extensive utilization of audio-visual materials was observed in elementary EMR programs.

Teacher-produced evaluation designs and instruments are used for pupil assessment; program evaluation designs seemed to be non-existent. Generally, students who complete the EMR program are awarded a certificate and participate in the regular graduation exercises of the school district.

Table 3.4 presents the computed per pupil costs for the Educable Mentally

TABLE 3.4

PER PUPIL COST INDICES OF THE PROGRAMS FOR THE EDUCABLE MENTALLY RETARDED

District	A Exceptional Program Cost Per Pupil	B Regular Program Cost Per Pupil	C Differential (A – B)	D Cost Index (A / B)
A	$ 1,289	$ 482	$ 807	2.67
B	708	509	199	1.39
C	1,634	1,114	520	1.47
D	875	477	398	1.83
E	1,012	889	123	1.14
F	1,414	600	814	2.36
G	1,689	795	894	2.12
H	826	484	342	1.71
I	987	468	519	2.11
J	1.412	860	552	1.64
K	933	653	280	1.43
L	1,523	783	740	1.94
M	1,543	690	853	2.24
N	1,034	734	300	1.41
P	1,645	828	817	1.99
Q	910	480	430	1.90
R	1,342	656	686	2.05
T	911	615	296	1.48
U	1,844	1,193	651	1.55
V	2,358	734	1,624	3.21
W	1,863	647	1,216	2.88
X	1,197	654	543	1.83
N=22	ΣX=28,949	ΣX=15,345	ΣX=13,604	ΣX=42.22
MEAN	$ 1,316	$ 698	$ 618	1.92
MEDIAN	$ 1,316	$ 655	$ 548	1.87

Retarded programs included in the sample (Column A) as well as the associated regular program costs (Column B). Column D represents the cost index computed for each program by dividing the per pupil cost of each EMR program by the respective district's per pupil cost of the regular program. The MEAN per pupil cost index was found to be 1.92 and the MEDIAN per pupil cost index was found to be 1.87. It may be interpreted that, on the average, the EMR programs included in this sample expend 92 per cent more per EMR pupil than they do for each regular pupil. The MEDIAN cost index for the EMR program indicates that the over-all expenditure trend may be a few percentage points less than the MEAN expenditure level.

Table 3.5 compares the per pupil expenditures by function for school districts having the highest, median, and lowest per pupil expenditure ratios for the Educable Mentally Retarded program. The per pupil cost was determined by function and the cost index was then computed for each functional expenditure for the special programs by dividing the per pupil cost for each function of the special program by the per pupil cost determined for each function of the regular program. This means, for example, that the per pupil expenditure for management of the EMR program in the highest ratio district is 3.21 times as great as the per pupil expenditure for management of the regular program. Obviously, the programs enrolling fewer pupils suffer to some extent from dis-economies of scale. However, one must remember that "more of everything" typically is provided children enrolled in these EMR programs – more program supervision, more clerical support (to accommodate increased volume of paper work necessitated by individual case studies and processing), lower pupil-teacher ratios, more supplies and equipment, more psychological services and curriculum programming ("Other" category under Instructional Support), more space per pupil (and consequently more operational and maintenance costs), more health services and more comprehensive transportation policies.

One must remember that the sample districts were selected because of their high quality programs and the data provided in Table 3.5 cannot be used to compare high expenditure districts with low expenditure districts or high quality programs with low quality programs. Each of the school districts in the sample is recognized as a leader among school districts providing services for exceptional children, and educational planners would do well to emulate the services offered by any of the twenty-two districts reporting on EMR programs. We are not prepared to assert that a school district which expends 3.21 times as much per pupil in its EMR program as it does per pupil in its regular program will have a higher quality program than if it were to expend 1.41 times as much as the regular program per pupil cost. However, we are prepared to say that the odds of obtaining a high quality program by expending within the limits observed are very good – we observed twenty-two school districts who were doing it.

Other resources identified as being provided to special programs for EMR students include civic club donations to cover expenditures for special events (e.g., "fun-parties" and educational trips) or instructional (training) equipment. Extensive services are provided by local employers who hire secondary age EMR pupils in cooperation with the work-study program. When one recognizes that the probability is very high that many EMR pupils would "drop-out" of high

TABLE 3.5

EXPENDITURE BY FUNCTION FOR SCHOOL DISTRICTS WITH HIGHEST, MEDIAN AND LOWEST PER PUPIL EXPENDITURE RATIOS FOR THE EDUCABLE MENTALLY RETARDED

	School District					
	V (Highest)		Q (Median)		N (Lowest)*	
Category	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index
Management						
Administration	$ 131	3.12	$ 31	1.30	$ 64	1.60
Clerical & Secretarial	77	1.87	18	1.00	46	1.36
Instruction						
Teachers	725	1.85	598	1.25	490	1.53
Teacher Aides	82	NA	- - -	- - - -	- - -	- - - -
Instructional Support						
Supplies & Equipment	72	1.33	15	1.09	21	1.11
Guidance & Counseling	9	1.00	9	1.00	29	3.58
Other	209	23.20	19	1.46	28	9.28
Institutional Operations						
Operation & Maintenance	250	3.33	141	2.94	81	1.50
Fringe Benefits	71	2.02	- - -	- - - -	63	1.46,
Other	52	1.00	49	1.00	168	1.00
Services						
Health	95	19.05	5	1.00	2	1.00
Food	1	1.00	14	1.00	30	1.00
Transportation Cost/Pupil in ADM	584	30.73	11	11.00	12	1.00
TOTAL – Current Operation	$2,358	3.21	$910	1.90	$1,034	1.41
Transportation Cost/Pupil Transported	$ 584	13.27	$112	4.86	$ 25	1.00
Capital Outlay/ADM	9	1.00	15	1.00	28	1.00
Debt Service/ADM	12	1.00	21	1.00	43	1.00
Teacher-Pupil Ratio	1:15	- - - -	1:13	- - - -	1:14.5	- - - -
Sq. Ft. Classroom Space Per Pupil	100	- - - -	88	- - - -	45	- - - -

NA – Not Available

* – Functions could not be computed for the two lowest cost index districts; therefore, the third lowest cost index district was used for this program.

school if they were not provided an alternative to comprehensive academic programming, and that many of them would subsequently enter the jobless and welfare stream, one can further appreciate the significance of community cooperation with the work experience dimension of the EMR program.

Trainable Mentally Retarded

Children whose intelligence quotients are determined to be within a range of approximately 35-50, and who are assessed to be incapable of profiting from special programs for the educable mentally retarded, are provided special programs designed to promote social adjustment and to develop the basic skills needed for survival. Florida establishes an IQ range of 35-55 for the trainable category; New York provides that the general intellectual capacity must be lower than three standard deviations below the mean of the general population.

The objectives of training programs for trainable mentally retarded (TMR) children emphasize basic survival skills designed to promote individual acceptance, social adjustment, and economic usefulness in the home and within a sheltered work environment. When one considers that TMR youth often can neither tie shoelaces nor control normal body functions at age 12, one can begin to realize the magnitude of the educational programming required for the TMR program. Specific skill training includes: using bathroom facilities, proper selection of clothing, good eating habits, enjoying the company of others, using public transportation, and extensive motor skill development.

Program development seems to be directed toward techniques which will bring about basic survival behaviors at an earlier age. One technique, of course, is early identification of TMR children and provision of extensive Pre-Kindergarten level activities. Another contemporary practice is to encourage mothers of TMR children to donate their services on a regular (weekly) basis in the classroom. One program we observed in which mothers were assisting with the program activities provided a ratio of ten children to five adults. The older pupils are provided a sheltered employment experience if a sheltered workshop exists in the school district. The Santa Cruz County, California, program for TMR pupils was one of the most outstanding programs we visited and might well serve as a model for the 1980's. The alternative to the TMR program seems to be custodial institutional care, which is neither socially nor economically acceptable for the majority of the target population.

Idealized pupil-teacher ratios were expressed by teachers as eight pupils per teacher (with aide) at the elementary school level and ten pupils per teacher (with aide) at the secondary school level. New York regulations limit pupil-teacher ratios to ten pupils per classroom for children whose chronological age is less than twelve years and to twelve pupils per classroom for children whose chronological age is greater than twelve years. Most districts do not provide services for pupils beyond 18 years of age, although those with cooperative sheltered workshop arrangements often extend their services to pupils up to 21 years of age.

Grade level identification among TMR programs is virtually non-existent. However, identification of programs as primary, intermediate, and vocational serves to indicate the chronological age of the pupils. No programs were identified in which TMR students were fused into a regular program, nor was there any support for this practice among the professionals we interviewed.

Most school districts identify prospective candidates for the TMR program prior to the time they enter kindergarten through such means as referrals by physicians and parents, and through a school census. The criteria for admission, re-evaluation and discharge are similar to those employed in the EMR programs except that the indicators vary (e.g., the individual I.Q. score is less for placement into a TMR program than for placement into an EMR program). The assessment typically includes medical, psychological, educational, and social dimensions.

Facilities for TMR programs are normally provided in separate special schools. The self-contained classrooms provide a homelike environment for training purposes (e.g., bedroom, kitchen, etc.). One district we visited used a duplex in a residential area to house two TMR classes. Extensive use is made of playground equipment to develop motor control at all program levels.

Evaluation of pupils consists essentially of teacher assessments of observed behavior modification. Few programs were observed that specify developmental behavioral objectives articulated through each level of programming. Systematic program assessment was found to be virtually non-existent. Program assessment dimensions were proposed in a 1966 publication of the California State Department of Education for those interested in developing evaluation designs for TMR programs.[6]

Table 3.6 displays our findings with regard to the costs associated with programs designed specifically for TMR pupils. Column A identifies the cost per pupil of the special program in each district; Column B identifies the cost per pupil of the regular program in each district; Column C represents the difference between special and regular program costs; Column D is the special program cost index computed by dividing the special program per pupil cost by the regular program per pupil cost. The MEAN expenditure for twenty-two reporting districts indicates that, on the average, those school districts providing programs for the trainable mentally retarded expend 2.20 times more per pupil in the special program than they expend per pupil in the regular program. The MEDIAN expenditure of 2.10 indicates that the expenditure trend among the reporting districts is 10 per cent less than the MEAN expenditure level. The expenditure range extends from a low cost index of 1.18 to a high cost index of 3.62.

Table 3.7 compares the expenditures by function for the school districts having the highest, median and lowest per pupil expenditure index for the TMR program. Again, the pupil-teacher ratio contributes significantly to the increased cost for teachers in the highest district, while the median district seems to be trading off expensive professionals for para-professional aides and supplies and equipment. Substantial variance also may be noted in the "Other" Instructional Support function (curriculum and psychological services) and in health and transportation services.

Auditorily Handicapped

Instructional programs for the aurally impaired were found to be of two

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general types. First, there are the instructional programs designed for children whose auditory acuity is non-functional. These children are often referred to as being *Deaf* or *Severely Hard of Hearing.* Second, there are the instructional programs designed for children whose auditory acuity is dysfunctional. These children are often referred to as being *Mildly Hard of Hearing.* Definitions of the aurally non-functional and aurally dysfunctional categories are given below.

There is a third type of "program" of a non-instructional nature that is closely associated with the auditorily handicapped category; namely, auditory screening of a selected sample of the school district's pupil population each year. The sample normally includes all children enrolled in two or more grade levels. For example, a school district may test the aural ability of all children enrolled in grades 1, 3, 5, and 9 each year. Although our financial analysis of the programs for the auditorily handicapped does not specifically provide for analyses of sub-programs, it is appropriate to devote attention to the planning and programming dimensions of the program triad identified above.

Auditory Screening

The purpose of audiometric evaluation is to identify those children who

TABLE 3.6

PER PUPIL COST INDICES OF THE PROGRAMS FOR THE TRAINABLE MENTALLY RETARDED

District	A Exceptional Program Cost Per Pupil	B Regular Program Cost Per Pupil	C Differential (A – B)	D Cost Index (A / B)
A	$ 871	$ 482	$ 389	1.81
B	636	509	127	1.25
C	1,840	1,114	855	1.65
D	562	477	85	1.18
E	2,321	889	1,432	2.61
G	2,629	795	1,834	3.31
H	875	484	391	1.81
I	1,032	468	564	2.21
J	1,701	860	841	1.98
K	911	653	258	1.40
M	1,550	690	860	2.25
N	1,411	734	677	1.92
O	1,553	549	1,004	2.83
P	2,078	828	1,250	2.51
Q	912	480	432	1.90
R	1,755	656	1,099	2.68
S	1,791	704	1,087	2.54
T	1,010	615	395	1.64
U	1,739	1,193	546	1.46
V	2,657	734	1,923	3.62
W	2,038	647	1,391	3.15
X	1,821	654	1,167	2.78
N=22	ΣX=33,693	ΣX=15,215	ΣX=18,578	ΣX=48.49
MEAN	$ 1,532	$ 692	$ 846	2.20
MEDIAN	$ 1,627	$ 655	$ 848	2.10

could benefit from programs specifically designed for the aurally impaired. For example, one school district we visited employed two trained audiometrists to evaluate the aural acuity of all pupils in kindergarten, first, third, fifth, seventh, and ninth grades. A large van is especially equipped to accommodate group testing and a small van is especially equipped to facilitate individual retesting. During the school year 1969-70, approximately 14,000 children were group

TABLE 3.7

EXPENDITURE BY FUNCTION FOR SCHOOL DISTRICTS WITH HIGHEST, MEDIAN AND LOWEST PER PUPIL EXPENDITURE RATIOS FOR THE TRAINABLE MENTALLY RETARDED

	School District					
	V (Highest)		J (Median)		D (Lowest)	
Expenditure Category	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index
Management						
Administration	$ 134	3.19	$ 146	2.47	$ 29	1.00
Clerical & Secretarial	78	1.90	21	1.00	10	1.00
Instruction						
Teachers	1,019	2,59	380	0.80	308	1.12
Teacher Aides	79	NA	237	13.96	- - -	- - - -
Instructional Support						
Supplies & Equipment	80	1.48	242	5.25	24	1.48
Guidance & Counseling	9	1.00	19	1.00	5	1.00
Other	216	23.96	3	1.00	13	1.00
Institutional Operations						
Operation & Maintenance	250	3.33	343	3.33	92	2.00
Fringe Benefits	56	1.60	70	2,80	- - -	- - - -
Other	52	1.00	7	1.00	19	1.00
Services						
Health	99	19.70	2	1.00	1	1.00
Food	1	1.00	16	1.00	53	1.00
Transportation						
Cost/Pupil in ADM	584	30.73	215	2.98	8	1.00
TOTAL – Current Operation	$2,657	3.62	$1,701	1.98	$562	1.18
Transportation						
Cost/Pupil Transported	$584	[illegible]	[illegible]	3.32	$40	1.00
Capital Outlay/ADM	9	[illegible]	[illegible]	1.00	2	1.00
Debt Service/ADM	12	[illegible]	[illegible]	1.00	78	1.00
Teacher-Pupil Ratio	1:10.2	- - - -	1:17	- - - -	1:22	- - - -
Sq. Ft. Classroom Space Per Pupil	100	- - - -	100	- - - -	60	- - - -

NA – Not Available

tested, 900 were group retested, 2,000 were administered individual air conduction hearing tests, and 200 were given bone conduction tests.

The following are typical objectives of the auditory screening program:

1. To provide group hearing tests for a specified sample of a school district's student population (e.g., grades K, 1, 3, etc.), all students enrolling for the first time, and all referrals.

2. To provide group retesting of all children who fail the initial test.

3. To provide a puretone threshold test for all children who fail the group test for the second time.

4. To provide a second puretone threshold test within a specified time period (e.g., one month) for children who fail the first puretone threshold test.

5. To provide school personnel, health personnel, and parents with case findings of audiometric evaluations.

Auditory disturbances are often associated with defective speech patterns and limited vocabulary. For that reason, curriculum programmers direct instructional strategies simultaneously toward language acquisition and hearing conservation. Although the type and degree of auditory impairment may determine the direction of educational goals and the specificity of operational objectives for a given child, our discussion must be limited to the organizational configurations and associated fiscal implications involved in providing services to meet the public school's rehabilitative and educational goals.

Mildly Hard of Hearing

Children who are diagnosed to have a hearing loss of 20 to 45 decibels in at least two frequencies in the speech range are considered to be mildly hard of hearing. (This definition would seem to combine Silverman's[7] *class one* and *class two* and Streng's[8] *mild loss* and *marginal loss* categories.) These children do not normally require prosthetic appliances (hearing aids) and are programmed educationally relative to their individual needs. Rehabilitative procedures vary from advantageous seating in the regular classroom, to instruction in speech reading by itinerant teachers, to speech therapy provided periodically in a resource room located within the child's school.

Treatment is provided both on an individual basis and in group sessions depending upon the instructional intent of the therapist relative to a specific behavioral objective. The idealized pupil-teacher load for group sessions, as expressed by itinerant therapists, was three children per therapist or six children per therapist and aide. More will be said about therapist case loads in our discussion of the speech programs, since speech therapy provides the principal instructional vehicle for rehabilitating the mildly hard of hearing child.

Itinerant services are often available at school facilities for children who are referred by their parents prior to the kindergarten experience, i.e., as early as three years of age.

In addition to the screening test procedures described above, other placement criteria for providing itinerant services for the mildly hard of hearing include: parental consent, otologist evaluation, medical examination, and recommendation by the Director of Special Services based upon all available evidence obtained through a case study of the candidate.

The resource room utilized by the itinerant therapist is often a small (8 ft. X 14 ft.), acoustically treated classroom providing language development materials and equipment as well as audiological devices.

Each student is evaluated by the therapist who makes recommendations relative to the future educational programming of the child. An audiometric evaluation is developed annually for each child in a program for the mildly hard of hearing.

Deaf or Severely Hard of Hearing

Children whose sense of hearing remains non-functional after all medical and/or surgical treatment and/or use of prosthetic devices are, for instructional purposes, considered to be deaf or severely hard of hearing. Some school districts use the audiological interpretation of deafness (loss of hearing between 75 to 80 decibels or greater across the speech range without the use of hearing aids); others prefer an educational interpretation of deafness (loss of hearing between 60 to 65 decibels or greater across the speech range without the use of hearing aids).

Educational planning for programs designed specifically for children with profoundly impaired hearing encompasses those dimensions found in the regular program but with an expansion of the communicative skills dimension to provide instruction designed to rehabilitate the child's aural handicap. Some children identified as deaf or severely hard of hearing attend special residential schools provided by the state (these are reported on later in this chapter), or they may attend area day schools provided through cooperative arrangements involving two or more school districts. Due to the high cost of programs for exceptional children, the latter arrangement seems to be quite popular at this time. More will be said about the educational cooperative in our discussion of programs for the blind and partially sighted.

Two specialized communicative techniques were identified among instructional programs for the deaf or severely hard of hearing. The *manual method* provides instruction in sign language or finger spelling and is considered to be the least functional since those with whom the child is communicating must also possess competancy in the esoteric technique. The *oral method* provides instruction in speech reading (lip reading), and although much more difficult instructionally, is considered to be the more practical approach and has the added advantage of not drawing attention to the child's handicap in social settings. The following instructional objectives of programs for the deaf or severely hard of hearing seem to be common:

1. To provide instruction in communication techniques directed toward rehabilitating the child's handicap.

2. To develop language skills in all areas of the curriculum essential to academic achievement.

3. To develop maximum use of the residual hearing available to each child with or without amplification.

4. To integrate the aurally handicapped child into the regular program if possible.

Program development seems to be directed toward the acquisition of more efficient techniques of communication. As noted above, lip reading is a most difficult and time consuming technique, although significant time may be saved in some cases when instruction is coupled with the use of prosthetic devices.

Several of the self-contained classrooms we visited were equipped with a magnetic loop which provides maximum amplification of the teacher's oral instructions. Other school districts utilized portable electronic devices (e.g., Phonic Mirror and Phonic Ear) which provided additional instructional options.

The idealized pupil-teacher ratio, as expressed by teachers of the deaf or severely hard of hearing, was five students per teacher at the elementary level and twelve students per teacher at the secondary level, assuming the availability of a teacher's aide. In the two pre-kindergarten programs which were visited, the teachers suggested that three children per teacher (without an aide) would be an optimum instructional group. However, the pre-kindergarten teachers hastened to add that three children would also be the minimum number required for many of their socialization activities.

Some states provide support for programs for aurally handicapped children who are three years of age. Three of the school districts we visited offered services to children below age three and two districts reported extending itinerant services to a child one and one-half years old. We found that school district personnel often offer free consultive services to parents of non-enrolled, pre-kindergarten-age children who are auditorily handicapped.

The grade level configuration of programs for the deaf or severely hard of hearing conformed quite closely to the general pattern established by the school district for its regular program. However, vocational counseling and rehabilitation services are often extended beyond the usual secondary school age for the aurally handicapped.

Program placement, processing, and review follow the pattern described above for the mildly hard of hearing. However, if the child is not making satisfactory progress (by age 14 in Texas) in the local program, parents are encouraged to enroll the child in the state's residential school for the deaf.

Program evaluation generally consists of statistical reports of the number of pupils served and surveys of input indicators. One ESEA Title I project provided extensive analyses and evaluation of pupil progress, but generally pupil evaluation was based on teacher-constructed tests and annotated records.

Table 3.8 displays the per pupil cost of special instructional programs designed specifically for the auditorily handicapped reported by school districts in the sample. The MEAN program expenditure of the eighteen reporting districts was $2,067 per pupil in the special program as compared to a MEAN per pupil expenditure of $700 in the regular program. The MEAN cost index of 3.15 indicates that, on the average, school districts in our sample expend 3.15 times more per pupil for their Auditorily Handicapped program than they expend per pupil for their regular program. The MEDIAN cost index of 2.99 for the sample suggests that the expenditure trend for the sample districts tends to approximate the MEAN expenditure.

Table 3.9 provides some additional insights into the expenditure patterns characteristic of programs for auditorily handicapped pupils. The data for school districts found to have the highest, median, and lowest cost indices were analyzed by object-of-expenditure and categorized as demonstrated in Table 3.9.

The functional cost indices for the special program are based upon the expenditures for each functional category in the district's regular program. The principal cost variances of the lowest cost index district were found to be in instructional supplies and equipment, transportation, and teacher salaries (primarily due to lower pupil-teacher ratio). The variances were quite distinct in the highest cost index district and were dramatically different than those for the lowest cost index district. The lower pupil-teacher ratio, use of teacher aides and other instructional support personnel (curriculum specialists, psychologists, audiometricians, etc.), and higher expenditures for administrative and supervisory personnel account for the bulk of the difference between the highest cost index district and the lowest cost index district.

TABLE 3.8

PER PUPIL COST OF INDICES OF PROGRAMS FOR THE AUDITORILY HANDICAPPED

District	A Exceptional Program Cost Per Pupil	B Regular Program Cost Per Pupil	C Differential (A – B)	D Cost Index (A / B)
A	$ 965	$ 482	$ 483	2.00
B	533	509	24	1.05
C	1,613	1,114	499	1.45
E	1,090	889	201	1.23
G	4,671	795	3,876	5.88
H	2,322	484	1,838	4.80
I	2,141	468	1,673	4.57
K	1,125	653	472	1.72
M	2,107	690	1,417	3.06
P	2,419	828	1,591	2.92
Q	2,725	480	2,245	5.68
R	1,873	656	1,217	2.86
S	2,021	704	1,317	2.87
T	2,286	615	1,671	3.72
U	1,275	1,193	82	1.07
V	2,802	734	2,068	3.82
W	3,146	647	2,499	4.86
X	2,099	654	1,445	3.21
N=18	$\Sigma X=37{,}213$	$\Sigma X=12{,}595$	$\Sigma X=24{,}618$	$\Sigma X=56.76$
MEAN	$ 2,067	$ 700	$ 1,368	3.15
MEDIAN	$ 2,103	$ 655	$ 1,431	2.99

TABLE 3.9

EXPENDITURE BY FUNCTION FOR SCHOOL DISTRICTS WITH HIGHEST, MEDIAN AND LOWEST PER PUPIL EXPENDITURE RATIOS FOR THE AUDITORILY HANDICAPPED

	School District					
	G (Highest)		P (Median)		C (Lowest)*	
Expenditure Category	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index
Management						
Administration	$ 195	4.64	$ 176	4.10	$ 75	1.00
Clerical & Secretarial	58	1.00	26	1.00	37	1.00
Instruction						
Teachers	2,275	5.52	823	1.98	700	1.31
Teacher Aides	84	42.00	---	----	---	----
Instructional Support						
Supplies & Equipment	153	4.92	46	1.59	123	6.15
Guidance & Counseling	2	1.00	17	1.00	29	1.00
Other	282	16.60	526	32.89	38	1.00
Institutional Operations						
Operation & Maintenance	612	7.20	201	2.96	256	2.00
Fringe Benefits	202	4.20	387	2.74	232	1.12
Other	48	1.00	52	1.00	17	1.00
Services						
Health	7	1.00	12	1.00	16	1.00
Food	21	1.00	8	1.00	4	1.00
Transportation						
Cost/Pupil in ADM	732	33.27	145	145.00	86	21.50
TOTAL – Current Operation	$4,671	5.88	$2,419	2.92	$1,613	1.45
Transportation						
Cost/Pupil Transported	$732	8.51	$290	2.24	$172	1.31
Capital Outlay/ADM	8	1.00	8	1.00	3	1.00
Debt Service/ADM	---	----	2	1.00	107	1.00
Teacher-Pupil Ratio	1:4.5	----	1:9	----	1:12	----
Sq. Ft. Classroom Space Per Pupil	206	----	89	----	60	----

* – Expenditure functions could not be computed for the three lowest cost index districts; therefore, the fourth lowest cost index district was used for this program.

Visually Handicapped

Instructional programs for the visually handicapped were found to be organized in two modes – itinerant services and self-contained classrooms –with each organizational mode serving two target populations of the visually impaired. Although the financial analyses of programs for the visually handicapped are treated singularly, program objectives, development, and organization will be explicated for programs designed for the partially-sighted and programs designed for the blind.

The Partially-Sighted

Programs for partially-sighted children are directed toward that portion of the school population whose visual acuity is 20/70 or less in the better eye after compensating lenses have been provided and who are not eligible for the program designed for the blind. In general, partially-sighted pupils possess academic potential comparable to that possessed by pupils in the regular program and are sufficiently developed socially and emotionally to insure reasonable behavior in group situations.

The objectives of educational programs for the partially-sighted are not unlike those of the regular program, although the facilitating objectives do differ. The major source of programming variance is found in the educational media best suited to facilitate accomplishment of the instructional goals of the school district.

Program development is directed toward providing special instructional media and activities to compensate for the child's defective vision. Instruction is provided by a qualified teacher in the basic subjects – reading and other language development skills, arithmetic, social studies, and science – by using large-print texts and other books (including encyclopedias), relief maps and various tactile instructional media and magnification devices. Extensive training is directed toward maximum utilization of the partial vision available to individual children as well as toward extension of other (e.g., auditory) communicative faculties.

Idealized pupil-teacher ratios were expressed by teachers of partially-sighted children to be ten elementary pupils or fifteen junior high pupils per teacher. Partially-sighted senior high school pupils normally are either completely integrated into the regular program or receive occasional itinerant service. Teachers suggested that not more than two grade levels be grouped for instruction, although some school districts grouped as many as four grade levels of partially-sighted pupils.

Identification is accomplished through visual screening of kindergarten or first grade pupils and/or referrals by teachers, parents, physicians or others who have specific information relative to the visual acuity of a particular child. Certification of the child's visual deficiency by an optometrist, ophthalmologist, or other person licensed to measure visual acuity is required as part of a case study that is developed for each candidate for placement in a program designed for the partially-sighted. Other data developed in the case study includes parental application forms, reports by psychologists, health evaluation, and teacher referral and educational history if applicable. A re-evaluation of each child is made annually and a recommendation is made to the placement committee relative to future educational programming.

Classroom facilities for programs designed for the partially-sighted typically are provided in a regular elementary school centrally located to minimize special transportation needs. The classroom must be designed so as to have minimum glare from various surfaces. Other special construction features may include oversized bookshelves and other storage facilities to accommodate oversized books and materials, special artificial lighting that accommodates the lighting needed in separate areas of the room, and special adjustable tilt-desks to facilitate altering both the distance and direction of individual instructional materials.

Services provided under the itinerant plan for accommodating partially-sighted children are similar to those provided in the self-contained classroom except that the children receive itinerant services on an individual basis (usually for reading instruction) between three and five half-hour sessions per week. The itinerant resource room is similar to, but smaller than, the self-contained classroom. Itinerant teachers also provide service to each child's regular teacher by securing appropriate materials and by providing the child with supplementary teaching. They also coordinate the services provided by volunteer groups and provide liaison between administrators, counselors, teachers, parents, and health service personnel relative to issues involving specific children and to issues relative to overall program planning and development.

The Blind

Children whose visual acuity is less than 20/200 after correction and treatment are considered "legally blind" and are provided special instructional services. Programs for the blind differ from programs for the partially-sighted in that there is little or no residual sight available to the blind child for instructional purposes. Like the programs for the partially-sighted, programs for the blind are typically organized around either self-contained classrooms or itinerant services.

One of the major facilitating objectives of programs for the blind is early identification and treatment. In several of the school districts we visited, blind children are offered services as early as eighteen months of age. Generally, the mother remains with the child during the one-hour sessions until the child is three years old (depending upon the child's progress) when, without the mother present, the child receives mobility and social readiness training to enable the child to participate in a nursery program with normally sighted four-year old children.

Mobility training (cane walking) is designed to develop skills needed by blind children for individual safety and orientation at home, at school, and in the community. The ultimate goal of mobility training is to make it possible for blind children to be independent of others relative to their travel needs.

Program planning and development of instructional programs for the blind are directed toward facilitating communication and information acquisition by systematically developing motor coordination, tactual discrimination, and auditory acuity. The idealized pupil-teacher ratios expressed by teachers of the blind are given in Table 3.10. The class-loads for secondary pupils represent daily itinerant teacher loads. Primary (pre-K thru Grade 3) and Intermediate (Grade 4 thru Grade 8) class-loads assume the full time services of a teacher aide.

TABLE 3.10

IDEALIZED NUMBER OF BLIND PUPILS PER TEACHER

Levels	Class-Load
Primary Age	7
Intermediate Age	10
Secondary Age	12

Student identification and placement follow the general procedures outlined for the partially-sighted child. As with programs for the partially-sighted, programs for blind children attempt to integrate the child into the regular program as quickly as possible and then provide the child with itinerant services as long as they are needed.

The self-contained classroom offers individualized instruction in braille to accommodate language development and reading skills. Special supplies and equipment include such items as tape recorders, relief maps, typewriters, braille books and charts, braille writers, and talking books. Reader services are often provided by volunteer groups.

Itinerant services generally are offered on a regular schedule in a resource room in a centrally located secondary school. Sighted student-aides are employed by some school districts to provide reading and other special services for blind students. Extensive liaison is required if the itinerant teacher is to facilitate meeting the needs of blind children enrolled in the regular program. Regular classroom teachers must provide assignments, materials, and tests at least one week in advance to be transcribed to tape or into braille.

The alternative to providing programs for blind children in local school districts seems to be residential care; and those facilities have already, in the opinion of many professionals, "outlived their usefulness."

One encouraging note relative to programs for the blind is that the incidence of blindness among children is decreasing. Hopefully, extended medical technology and prenatal health services will accelerate the decline in the incidence of blindness.

A common practice among school districts is to form area cooperatives to provide special education services whereby programs for exceptionalities with low prevalence rates may be provided on a tuition basis by one school district in the cooperative. In some states, intermediate educational agencies (e.g., New York's Boards of Cooperative Educational Services) assume responsibility for many of the programs for exceptional children – especially those with low prevalence rates such as programs for the blind.

Table 3.11 displays the per pupil expenditures for special programs designed specifically for the visually impaired and the corresponding per pupil expenditures for the regular program for each of the seventeen school districts in the sample reporting on this program.

The 1968-69 special program expenditure reported by the sample of school districts ranged from a low of $852 per pupil to a high of $9,105. The propensity to spend for special program services is measured by the cost index given in Column D. Thus, school district B, by providing $852 per pupil, is inputting relatively more resources to its program than is district K, which spent $183 more per pupil. All of the school districts spent at least 50 percent more per pupil for their special program than they spent for their regular educational program.

The MEAN cost index of 3.48 indicates that, on the average, the seventeen school districts spent 3.48 times more for each pupil in programs for the visually impaired than they did for each pupil in regular programs. The MEDIAN cost index of 2.97 indicates that the expenditure trend is somewhat lower than the MEAN cost index – which one would expect in light of the extremely high cost index school district.

To gain some insight into the expenditure patterns of the school districts having the highest, median, and lowest expenditure indices, Table 3.12 was developed. The object-of-expenditures in Table 3.12 show the per pupil costs by

TABLE 3.11

PER PUPIL COST INDICES OF PROGRAMS FOR THE VISUALLY HANDICAPPED

District	A Exceptional Program Cost Per Pupil	B Regular Program Cost Per Pupil	C Differential (A – B)	D Cost Index (A / B)
B	$ 852	$ 509	$ 343	1.67
C	2,079	1,114	965	1.87
E	3,866	889	2,977	4.35
G	9,105	795	8,310	11.45
H	2,267	484	1,783	4.68
I	1,390	468	922	2.97
K	1,035	653	382	1.58
M	2,241	690	1,551	3.25
P	2,197	828	1,369	2.65
Q	2,141	480	1,661	4.46
R	1,612	656	956	2.46
S	2,449	704	1,745	3.19
T	1,396	614	781	2.27
U	1,255	1,193	62	1.05
V	3,717	734	2,983	5.06
W	2,245	647	1,598	3.47
X	1,773	654	1,119	2.71
N=17	ΣX=41,620	ΣX=12,113	ΣX=29,507	ΣX=59.40
MEAN	$ 2,448	$ 713	$ 1,736	3.48
MEDIAN	$ 2,197	$ 656	$ 1,369	2.97

function for the special program. The cost index for each function is a ratio of the special program cost compared to the regular program cost per pupil for each function.

The highest cost index district, which also reported the highest per pupil expenditure in 1968-69, spent more per pupil for administration and supervision than the lowest cost index district reported spending for its entire program. The $5,556 per pupil expenditure for teacher salaries reported by the highest expenditure district is greater than the overall expenditure reported by sixteen districts. Obviously, the high expenditure for teacher salaries is a result of the low (1:1.8) pupil-teacher ratio. For the most part, the high cost indices may be attributed to dis-economies of scale resulting from a small program enrollment in the highest cost index school district. That district reported a 1968-69 enrollment of less than ten blind or partially-sighted students. Still, the organizational structure for providing educational programs for the visually impaired reflects a dedication to provide individualized services which is manifested in the 1:1.8 teacher-pupil ratio.

Physically Handicapped

A broad interpretation of the physically handicapped category would include many maladies previously discussed and some yet to be explicated. However, for the most part, children identified as being within this particular target population probably would best be characterized as orthopedically impaired, i.e., marked by deformities or crippling.

The discovery and subsequent wide-spread use of polio vaccines has brought about a dramatic decline in the number of orthopedic cases resulting from poliomyelitis – the principal contributor to orthopedic impairments during the 1940's and 1950's. Concomitantly, use of antibiotics and other life-saving procedures has increased the incidence of spina bifidas, cerebral palsy, and paraplegias caused by accidents to the extent that they now are reported to comprise over 50 percent of the cases served by orthopedic programs.

The educational goals for the physically impaired approximate those for the school district's regular program and a distinct commitment was expressed (and observed) to integrate the physically impaired child into the regular program. It was not uncommon during our visitations to observe an elementary school pupil wearing leg braces crawling across the floor of a regular program classroom and yet drawing no special attention from the other children.

Two categories of programs for the physically handicapped were identified during this research: (1) day school educational and therapy services located at various attendance centers and (2) homebound and hospital educational and therapy services provided on an itinerant basis either at the child's home or at a local hospital. The latter program being somewhat more flexible, especially with respect to duration of services offered, was not identified as a separate program category. We did, however, attempt to determine a single dimension expenditure pattern for the homebound/hospital instructional program and will present those findings separately in this section since the homebound/hospital program costs are NOT included in our cost analyses of programs for the physically handicapped.

TABLE 3.12

EXPENDITURE BY FUNCTION FOR SCHOOL DISTRICTS WITH HIGHEST, MEDIAN AND LOWEST PER PUPIL EXPENDITURE RATIOS FOR THE VISUALLY HANDICAPPED

	School District					
	G (Highest)		I (Median		D (Lowest)*	
Expenditure Category	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index
Management						
Administration	$ 986	23.48	$ 89	3.54	$ 80	1.38
Clerical & Secretarial	58	1.00	9	1.00	34	1.13
Instruction						
Teachers	5,556	13.48	649	2.26	669	1.68
Teacher Aides	306	153.00	215	NA	---	----
Instructional Support						
Supplies & Equipment	191	6.14	24	4.00	25	1.14
Guidance & Counseling	2	1.00	65	8.17	86	4.30
Other	17	1.00	94	18.89	11	1.00
Institutional Operations						
Operation & Maintenance	755	8.88	150	3.00	63	1.00
Fringe Benefits	425	8.85	---	----	37	1.00
Other	48	1.00	13	1.00	8	1.00
Services						
Health	7	1.00	19	9.69	1	1.00
Food	21	1.00	53	1.00	1	1.00
Transportation Cost/Pupil in ADM	733	33.31	10	1.00	20	5.00
TOTAL – Current Operation	$9,105	11.45	$1,390	2.97	$1,035	1.58
Transportation Cost/Pupil Transported	$733	8.52	NR	----	37	1.00
Capital Outlay/ADM	8	1.00	6	1.00	36	1.00
Debt Service/ADM	---	----	73	1.00	25	1.00
Teacher-Pupil Ratio	1:1.8	----	1:11.5	----	1:13.8	----
Sq. Ft. Classroom Space Per Pupil	267	----	90	----	NR	----

NR – Not Reported
NA – Not Available
* – Expenditure functions could not be computed for the lowest district; therefore, the second-lowest cost index district was used for this program.

Day School Services

Physical therapy contributes significantly to accomplishment of the physical rehabilitation goal of orthopedically handicapped programs. Upon recommendation and prescription of the child's physician, physical therapists employ various therapeutic techniques (including hydro-therapy) and muscular development activities. The principal objectives of the physical therapy dimension of the program are to develop competence in self-care within limits of individual abilities and to provide needed social adjustment.

The facilities housing programs for the physically handicapped were found to be located in both regular and separate attendance centers. The arrangements within the facilities, however, were quite similar in that separate areas are provided for physical therapy and for academic instruction.

Physical therapists provide individualized services. The idealized pupil teacher ratio in the academic aspect of the program as expressed by teachers was twelve pupils per teacher for instruction, assuming the availability of a teacher's aide and further assuming the target population to be normatively educable. Although many of the children in such programs are in need of other special services (e.g., speech therapy), the pupil-teacher ratio expressed assumes that no EMR, TMR, Deaf, Blind, or Emotionally Disturbed pupils are enrolled. An additional concern was expressed that the teacher's aide for the orthopedically handicapped program be a male due to the extensive amount of lifting of children required.

Grade level groupings often span three or four years, even in medium sized school districts, but no particular concern was expressed in this regard. Although most school districts provide no special instructional arrangements for the orthopedically handicapped beyond the elementary level, physical and occupational therapy may be continued on an individualized basis. This further testifies to the commitment and the success achieved in integrating physically impaired pupils into the regular program.

As with the other programs for exceptional children, entry into a program for the orthopedically handicapped requires a case study of the child including parental application, physical examination with recommendations, psychological evaluation, and educational history. The school district's special education placement committee or the Director of Special Services determines the most appropriate programming for each case based upon information provided by the case study. Each placement is temporary, as with other special programs, and each case is re-evaluated periodically (at least annually) and future programming is thus determined.

A plethora of specialized equipment and architectural features were identified with programs for the physically handicapped. These included such features as ramps, wide doors, low water fountains, rails along walls and in restrooms, adjustable wrap-around desks, bookholders and much more.

The only statement identified relative to program evaluation was the report by one school district that approximately one-third of the pupils enrolled in their orthopedically handicapped program are integrated into the regular program each year.

Table 3.13 presents the per pupil cost determined for the fifteen reporting districts in our sample. By comparing the per pupil special program cost with the per pupil cost of the regular program, we developed a cost index (Column D) for each special program. The cost indices ranged from 1.52 to 4.64. Thus, school district I spent 1.52 times as much per pupil in the special program as it spent per pupil in the regular program. The MEAN cost index was computed to be 3.26, which indicates that, on the average, the reporting school districts spent 3.26 times more per pupil in the special program than they did per pupil in the regular program. The MEDIAN cost index of 3.64 suggests that the expenditure trend may be somewhat higher than the computed MEAN expenditure.

TABLE 3.13

PER PUPIL COST INDICES OF PROGRAMS FOR THE PHYSICALLY HANDICAPPED

District	A Exceptional Program Cost Per Pupil	B Regular Program Cost Per Pupil	C Differential (A – B)	D Cost Index (A / B)
B	$2,362	$ 509	$1,853	4.64
C	4,210	1,114	3,096	3.78
F	2,723	600	2,123	4.54
G	3,371	795	2,576	4.24
H	1,763	484	1,279	3.64
I	713	468	245	1.52
K	1,121	653	468	1.72
L	2,899	783	2,116	3.70
M	2,406	690	1,716	3.49
P	1,966	828	1,138	2.37
Q	2,113	480	1,633	4.40
R	1,308	656	652	1.99
T	1,392	615	777	2.26
V	2,743	734	2,009	3.74
W	1,872	647	1,225	2.89
N=15	ΣX=32,962	ΣX=10,056	ΣX=22,906	ΣX=48.92
MEAN	$ 2,197	$ 670	$ 1,527	3.26
MEDIAN	$ 2,113	$ 653	$ 1,633	3.64

Table 3.14 contrasts the per pupil costs and cost indices by object-of-expenditure for the school districts having the highest, median, and lowest overall per pupil cost indices. The expenditure for teacher aides in the high cost index district could not be contrasted with the regular program cost because no teacher aides were reported for the regular program.

Both the high expenditure ratio district and the low expenditure ratio district shown in Table. 3.14 reported the same enrollment. However, the low expenditure district reported that one-third of their enrollment was in secondary school while the high expenditure ratio district reported all of their enrollment was in the elementary school. Judging from the cost indices of these two districts, one might suspect that the philosophy of integrating these pupils into the regular program provides some economic benefits as well as contributing to the socialization intent of the integration commitment. Secondary students in the low cost index district received limited itinerant services.

The cost functions seem to vary in almost every object-of-expenditure category, i.e., from more administration and supervision through differing transportation requirements. The between district expenditure variance for Other Instructional Support (psychologists, therapists, etc.) provided the most striking differences.

Homebound/Hospital Services

Two organizational plans for providing instructional services for children confined in hospitals or in their homes were identified. The two plans are similar in that the target population of the self-contained hospital classroom often changes as rapidly as does the target population in home locations visited by itinerant teachers. Normally, homebound services are not provided for children whose projected absence from the classroom is less than four weeks since arrangements for make-up work for those pupils are often made by parents with the child's regular teacher(s). At the other extreme, some children may receive hospital and/or homebound services for protracted periods of time (e.g., more than two years).

In larger school districts, a room and/or a ward in a hospital may be set aside specifically for instructional purposes in a program which is directed by a "teacher in residence". These programs may also utilize services provided by educational specialists (e.g., art teachers, music teachers, etc.) in the same manner that they provide services to the regular instructional program. In one school district we visited, an elementary teacher was assigned to the hospital full-time for instructional purposes, and an itinerant teacher served hospitalized secondary school pupils.

Itinerant teachers serving children in the homebound/hospital program coordinate their individualized tutoring services with assignments, texts, and tests provided by the child's regular classroom teacher(s). Both parents and members of hospital staffs report that teacher-assigned educational activities seem to be therapeutic since they occupy much of the confined child's time and attention. However, the primary objective of both the homebound and the hospital instructional programs is to keep children current relative to their placement in the regular program. Itinerant case loads were idealized at seven students per teacher per week.

No procedures for evaluating the homebound/hospital program were identified. Children are evaluated as if they were in attendance at their regularly assigned school except for any modifications in testing procedures which may be indicated if the behavioral requirements of a particular test are incompatible with the child's restricted mobility.

Table 3.15 displays cost indices of programs for children receiving homebound and/or hospital educational services in the reporting districts during the 1968-69 school year. Column A reports the total program cost to the school district; Column B identifies the number of children served by the program (not necessarily the full-time equivalency because those data were not available); Column C is the computed per pupil cost for the program determined by dividing Column A by Column B; Column D indicates the reporting school district's regular program cost; and Column E represents the cost index for the

TABLE 3.14

EXPENDITURE BY FUNCTION FOR SCHOOL DISTRICTS WITH HIGHEST, MEDIAN AND LOWEST PER PUPIL EXPENDITURE RATIOS FOR THE PHYSICALLY HANDICAPPED

	School District					
	F (Highest)*		H (Median)		I (Lowest)	
Expenditure Category	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index
Management						
Administration	$ 182	3.50	$ 35	1.00	$ 50	2.00
Clerical & Secretarial	51	2.82	16	1.00	9	1.00
Instruction						
Teachers	512	1.52	1,217	3.88	334	1.16
Teacher Aides	436	NA	---	----	---	----
Instructional Support						
Supplies & Equipment	93	5.80	15	1.50	15	2.50
Guidance & Counseling	---	----	77	5.46	31	3.82
Other	526	43.81	251	251.00	68	13.50
Institutional Operations						
Operation & Maintenance	645	8.96	44	1.00	128	2.56
Fringe Benefits	122	6.10	---	----	---	----
Other	51	1.00	4	1.00	13	1.00
Service						
Health	2	1.00	68	13.50	2	1.00
Food	1	1.00	35	1.00	53	1.00
Transportation						
Cost/Pupil in ADM	102	9.27	1	1.00	10	1.00
TOTAL—Current Operation	$2,723	4.54	$1,763	3.64	$713	1.52
Transportation						
Cost/Pupil Transported	159	2.09	NA	----	NA	----
Capital Outlay/ADM	7	1.00	24	1.00	6	1.00
Debt Service/ADM	29	1.00	72	1.00	73	1.00
Teacher-Pupil Ratio	1:19.5	----	1:6	----	1:19.5	----
Sq. Ft. Classroom Space Per Pupil	269	----	30	----	77	----

NA - Not Available

* - Expenditure functions of the highest cost index district could not be computed; therefore, the second-highest cost index district was used for this program.

special program determined by dividing the special program per pupil cost (Column C) by the regular program cost (Column D).

TABLE 3.15

COST INDICES OF PROGRAMS FOR CHILDREN WHO ARE HOMEBOUND OR HOSPITALIZED

District	A Total Cost	B Pupils Served	C Per Pupil Cost	D Regular Program Per Pupil Cost	E Cost Index C/D
B	$ 68,050	397	$ 171	$ 509	0.35
C	7,930	21	378	1,114	0.34
D	4,500	9	500	477	1.05
E	48,114	130	370	889	0.42
F	3,605	25	144	600	0.24
G	81,438	289	282	795	0.35
H	3,300	68	49	484	0.10
I	10,795	40	270	468	0.58
J	277	3	93	860	0.11
K	242,988	506	480	653	0.74
L	26,000	102	255	783	0.33
M	7,912	45	176	690	0.26
N	14,624	64	229	734	0.31
O	8,882	40	222	549	0.40
P	12,740	27	472	828	0.57
Q	80,300	160	502	480	1.05
R	135,882	276	492	656	0.75
T	25,156	83	303	651	0.47
V	95,825	101	949	734	1.29
W	195,910	63	3,110	647	4.81
X	2,801	9	311	654	0.46
N=21					
ΣX-H-L	=	1,949	$ 6,599	$ 12,673	10.07
Adjusted Mean $\frac{(\Sigma X\text{-}H\text{-}L)}{N\text{-}2}$	=	103	347	667	0.53
Median	=	64	303	654	0.42

It would be inappropriate to interpret the cost index in the same way as those described for the other programs for exceptional children because of our inability to determine the full-time equivalency (FTE) enrollments in the homebound/hospital program. We have reason to suspect that the relatively low cost indices result from high FTE caseloads when determined on the yearly basis.

The ADJUSTED MEAN seems to provide a more relevant measure in view of the wide range which existed. The ADJUSTED MEAN was computed by eliminating the highest (H) and the lowest (L) statistic in each column. The MEDIAN was determined in the usual fashion.

Speech Handicapped

Programs for the speech impaired are designed to serve pupils who have been diagnosed by a qualified speech therapist as being in need of special services which may improve or correct speech defects. Disorders which often manifest speech defects include, among others, deafness, aphasia, cerebral palsy, and cleft palate.

The primary objective of the program for the speech handicapped is to assist children with speech problems to communicate orally more effectively. This may include complete elimination of some problems as well as working to improve the self-image of children whose problems cannot be completely eliminated.

Many school districts identify speech therapy programs as "speech and hearing" programs. Auditory handicaps in one school district accounted for approximately 75 percent of the speech therapists' caseloads. Speech therapy generally is available to children classified in any program (e.g., regular, compenstory, exceptional child, etc.) and is perhaps most appropriately regarded as a supplementary service. To insure that we were not overstating the size of our target populations, we requested that the full time equivalency be computed for each program, thus attempting to eliminate any double counting.

Speech therapists normally provide individualized instruction although they reported that some instructional activities could best be implemented with groups of four pupils. Caseloads were idealized by speech therapists to be between fifty to seventy-five pupil contacts per week. However, some districts reported caseloads of 100 students per week, while California regulations limit the caseload of a speech therapist to ninety pupils per week.

Individualized instruction is offered in time modules of fifteen to twenty minutes, while group instruction is normally of twenty to thirty minutes duration. Pupils meet with the therapist either individually or as a group member between one and five times per week (scheduling is individualized relative to pupil needs and prescriptive therapy).

Identification is accomplished through screening all pupils at a particular grade level (e.g., grade 2) and all transfer students, and by referrals from teachers, parents, physicians, and others. A case study is developed for each candidate which includes the parental application, recommendation by a speech therapist, medical examination, psychological evaluation, and educational history. Based upon the case study, the Director of Special Services makes a recommendation to the placement committee relative to proposed services and anticipated duration.

Resource room facilities are very similar to those described for the program designed for the mildly hard of hearing. Special equipment may include such items as a tape recorder, phonograph, Phonic Mirror and mirror. Speech and phonic materials (e.g., Peabody Language Development Kits) were observed to be in abundance.

Pupil evaluation rests largely with the individual speech therapist. One school district (Mt. Diablo, California) provided us with an excellent outline for evaluating therapy services as well as a report of a survey soliciting the perceptions of parents, teachers and members of the community relative to the quality of speech therapy services offered by the school district.

Table 3.16 displays the per pupil cost of programs for the speech handicapped reported by our sample of school districts. The per pupil special program cost (Column A) was divided by the per pupil regular program cost (Column B) to arrive at the special program cost index (Column D). Because most speech or speech and hearing programs are organized as itinerant services, the full time equivalency was computed for both therapists and enrollments so that the special and regular programs are compared on similar bases.

The MEAN cost index of 1.25 indicates that, on the average, the reporting school districts spent 25 percent more per pupil for the special program than they expended per unit for the regular program. The MEDIAN cost index of 1.18 indicates that the expenditure trend among the reporting school districts was 7 percent lower than the MEAN expenditure.

TABLE 3.16

PER PUPIL COST INDICES OF PROGRAMS FOR THE SPEECH HANDICAPPED

District	A Exceptional Program Cost Per Pupil	B Regular Program Cost Per Pupil	C Differential (A - B)	D Cost Index (A/B)
A	$ 604	$ 482	$ 122	1.25
B	594	509	85	1.17
D	552	477	75	1.16
F	753	600	153	1.26
G	932	795	137	1.17
H	1,027	484	543	2.12
I	541	468	73	1.16
J	954	860	274	1.11
K	959	653	306	1.47
L	1,012	783	229	1.29
M	793	690	103	1.15
N	799	734	65	1.09
O	639	549	90	1.16
P	987	828	159	1.19
Q	546	480	66	1.14
R	848	656	192	1.29
S	900	704	196	1.28
T	725	615	110	1.18
V	875	734	141	1.19
W	736	647	89	1.14
X	899	654	245	1.37
N=21	ΣX=16,675	ΣX=13,402	ΣX=3,453	ΣX=26.34
MEAN	$ 794	$ 638	$ 164	1.25
MEDIAN	$ 799	$ 653	$ 137	1.18

Table 3.17 contrasts the expenditure patterns of the school districts having the highest, median, and lowest cost indices. The object-of-expenditure per pupil cost is given for the speech program and then compared to the object-of-expenditure per pupil cost for the particular district's regular program. The resulting ratio of that comparison is identified as the cost index. The cost index for each expenditure function demonstrates the propensity of the school district

in applying its resources. For example, unlike the other programs for exceptional children discussed previously, the expenditure for teacher salaries for speech therapy does not vary significantly from the regular program. However, the expenditure for Other Instructional Support (psychologists, speech pathologists, etc.) does vary significantly from the regular program and also varies considerably between the high, median, and low cost index programs. Further, it appears that expenditures for health services and for instructional supplies and equipment account for the major remaining expenditure differences between the three programs which were contrasted.

Other Programs for Exceptional Children

We must pause briefly at this point in the discussion to develop a rationale for categorizing the programs yet to be explicated. The *a priori* categories of programs for exceptional children which have not yet been discussed are: neurological disorders (manifested as other than orthopedic disabilities), emotionally disturbed, special learning disorders, and multiple handicapped. However, we must conclude *a posteriori* that the foregoing categories are not operationally discrete insofar as educational programs are concerned. For example, some school districts were found to be serving in a single program bearing the title "Special Learning Disorders" children with neurological disorders and children assessed as being emotionally disturbed. Obviously, that program configuration encompasses three of the *a priori* categories we developed from the literature. We also found school districts providing educational programs for children of average or above average intelligence whose academic achievement level was at least 25 percent lower than their ability would indicate and who manifested syndromes characteristic of emotional disturbances and/or neurological disorders. That program for children with behavioral and/or neurological problems bears the broad title "Educationally Handicapped". Further, we identified programs in other school districts which used a neurological definition for a particular program, yet identified a taxonomy of behavioral characteristics closely parallel to those used by other school districts for identifying children who have neurological disorders, special learning disorders, and/or children who may be emotionally disturbed.

We also identified special educational services provided for unwed pregnant girls, drug dependent minors, and the socially maladjusted. (The latter term is often applied to incarcerated youths who are wards of the court and usually are undergoing pre-sentencing investigation.) The foregoing target populations, having been identified for special educational programming, might rationally be grouped as sub-programs for the emotionally disturbed, given appropriate psychological case studies of the participants. However, one may argue just as effectively that persons who comprise the above populations are merely social deviants; and since the educational program is somewhat similar for each target population, a title such as "Socially Maladjusted" would be just as appropriate as any other title. This issue and the problems relative to overlapping categorizations noted earlier, seem to substantiate the divergence in meaning of special education program titles and subsequent student classification described by Reger.[9]

TABLE 3.17

EXPENDITURE BY FUNCTION FOR SCHOOL DISTRICTS WITH HIGHEST, MEDIAN AND LOWEST PER PUPIL EXPENDITURE RATIOS FOR THE SPEECH HANDICAPPED

	School District					
	H (Highest)		T (Median)		N (Lowest)	
Expenditure Category	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index
Management						
Administration	$ 35	1.00	$ 50	1.07	$ 40	1.00
Clerical & Secretarial	16	1.00	18	1.00	34	1.00
Instruction						
Teachers	313	1.00	358	1.00	320	1.00
Teacher Aides	6	1.00	5	1.00	7	7.00
Instructional Support						
Supplies & Equipment	14	1.40	16	1.06	20	1.04
Guidance & Counseling	16	1.14	9	1.00	8	1.00
Other	513	513.00	122	3.58	59	19.81
Institutional Operations						
Operation & Maintenance	47	1.05	63	1.28	54	1.00
Fringe Benefits	---	----	22	1.22	45	1.04
Other	4	1.00	27	1.00	168	1.00
Services						
Health	27	5.34	1	1.00	2	1.00
Food	35	1.00	7	1.00	30	1.00
Transportation						
Cost/Pupil in ADM	1	1.00	27	1.00	12	1.00
TOTAL—Current Operation	$1,027	2.12	$ 725	1.18	$ 799	1.09
Transportation						
Cost/Pupil Transported	NA	----	$ 82	1.00	$ 25	1.00
Capital Outlay/ADM	24	1.00	38	1.00	28	1.00
Debt Service/ADM	72	1.00	64	1.00	43	1.00
Teacher-Pupil Ratio	1:14.6	----	1:65.5	----	1:131	----
Total Sq. Ft. Classroom Space	300	----	310*	----	NA	----

NA - Not Available
* - Total Space Available

For the purposes of this study, we believe that it is appropriate, based upon our observations of operational programs, to combine into one category the *a priori* categories identified as Neurological Disorders and Special Learning Disorders. The combined category will be titled "Special Learning Disorders" and will include the Neurologically Impaired, Minimum Brain Injury (Texas), and Educationally Handicapped (California). Although the title used in California (Educationally Handicapped) is most appealing to us, we were concerned that use of this title might create some confusion *vis-a-vis* compensatory educational programs for the culturally deprived, since both programs provide compensatory instructional services but for different target populations.

For purposes of analysis, we have also combined under the title "Emotionally Disturbed" educational services provided for children who have been evaluated by a psychiatrist as emotionally disturbed (often these children require sedation to function pseudo-normally), for children who have been identified as socially maladjusted, and for children identified as drug dependent minors.[10]

We will not consider in our analysis programs designed specifically for unwed pregnant girls. (California law classifies these youth as physically handicapped.) Possibly, the recent liberalization of abortion statutes in many states will affect the incidence rate of unwed pregnant girls to the extent that educational programming may not be necessary for that particular target population.

Finally, a third program category titled "Multiple Handicapped" will be explicated briefly although we have some reservations relative to the efficacy of such a category which will be explained in the discussion later in this chapter.

Special Learning Disorders

We are unable to provide a precise definition or exhaustive taxonomy of the dysfunctional qualities associated with children who receive educational services designed to alleviate or compensate for special learning disorders. We identified common services being provided for children who have been assessed as neurologically impaired and children not so assessed but whose educational needs approximated the educational needs of the neurologically impaired. (Reger contrasts this identification anomaly as *fact* vs. *concept*, which seems to provide a rational conceptualization of differences among the target population.) For example, similar educational programming is provided for the dysphasic child and the dyslexic child. The former deficiency in ability to use or understand language is caused by injury or disease of the brain; the latter disturbance of the ability to read (use or understand language) may result from indeterminant brain dysfunction or psycho-phenomena. However, we hasten to add that we are much more interested in whether or not the educational treatment contributes significantly to the child's normative behavioral expectations and academic growth than we are with whether or not identification typologies match existing educational programming.

Program planning and development for programs designed to accomodate children with special learning disorders can best be characterized as remediation oriented. As one reads statements of instructional intent, one has the distinct impression that he is reading about programs for the educable mentally retarded except that one goal for children with special learning disorders is integrating them into the regular program (assuming successful remediation); and one criterion for program placement is that no educable mentally retarded children are to be programed with children having special learning disorders. Except for activities designed to ameliorate hypertension, the instructional designs for the two programs appear to be quite similar. More will be said about programs for the severely emotionally disturbed later in this chapter when residential programs are discussed.

Instructional strategies are directed at reducing environmental stimuli so that learning tasks remain calibrated within the attention span, intellectual capacity, and frustration level of those being served. This is not to imply that the learning environment was found to be devoid of decor; quite the contrary was observed. However, the stimuli are designed only to reinforce instruction and not to extrapolate concepts as is often the case in the regular classroom. Teachers of children identified as having special learning disorders idealized the pupil-teacher ratio as eight pupils per teacher in a self-contained classroom and no more than ten pupils per week for itinerant services.

Itinerant services provide individualized and small group (two or three pupils) instruction based upon the child's needs as established by the regular classroom teacher and the special teacher. More than one administrator reported that the spill-over effects of the specialist working with regular classroom teachers contributed significantly to upgrading regular program instruction, especially in terms of sharpening the specificity of instructional intents.

Grade levels follow the normative pattern of the regular elementary school program and little deviation from the regular program was noted for pupils of secondary school age. Identification of candidates for the special learning disorders program rests primarily upon recommendations by regular classroom teachers of pupils for psychological screening. A case study of each candidate includes psychological evaluation, medical examination (neurological), parent application for special services, educational history, and teacher recommendation. The school district's placement committee authorizes placement of children in the special learning disorders program and annually reviews each child's progress to determine if the child should continue in the program or be terminated.

Facilities were found to be somewhat smaller than the regular classroom but not dissimilar in architecture or furnishings. Instructional materials are highly stimulating (visual and tactual) and intensely programmed toward a specific behavioral objective which may be attained within a brief (e.g., 15 minute) period. The instructional intent is to totally engage the child with the programmed stimuli and thus screen out extraneous stimuli which may negate instruction.

Children in the special learning disorders program often receive itinerant services from speech and/or hearing therapists, psychologists, and counselors. Vocational counseling is a normative practice among secondary-age pupils although they may not be specifically identified as, or programmed into, classes for children with special learning disorders.

Only one school district provided us with a comprehensive evaluation of their special learning disorders program. Assessment dimensions included reasons for children terminating the program, results of intelligence tests, wide-range achievement test scores (pre and post tests), pupil characteristics, parental responses to questionnaires, physicians' opinions, and teacher and administrator responses to opinionaires. Obviously, extensive pupil assessment was required to evaluate that school district's special program. However, among the other programs we visited, extensive formal evaluation (pupil and program) was not a normative practice.

Table 3.18 presents the per pupil cost of the special learning disorders program (Column A), the per pupil cost of the regular program (Column B), the difference between special program and regular program per pupil cost (Column C), and the per pupil cost indices (Column D) computed by dividing Column A by Column B. The cost indices ranged from a low of 1.40 to a high of 5.20. Thus, school district K spent 1.4 times as much on each pupil in the special program as they spent on each pupil in their regular program. School district Q spent 5.2 times more per pupil on their special program than they spent per pupil on their regular program. The MEAN cost index was found to be 2.50, indicating that, on the average, the 20 reporting districts spent 2.5 times more per pupil for their special learning disorders program than they spent per pupil for their regular program. However, the MEDIAN cost index of 2.16 indicates that the expenditure trend is somewhat less than the MEAN expenditure index.

TABLE 3.18

PER PUPIL COST INDICES OF PROGRAMS FOR SPECIAL LEARNING DISORDERS

District	A Exceptional Program Cost Per Pupil	B Regular Program Cost Per Pupil	C Differential (A - B)	D Cost Index (A - B)
A	$ 938	$ 482	$ 456	1.95
B	974	509	465	1.91
C	2,099	1,114	985	1.88
D	863	477	386	1.81
E	1,273	889	384	1.43
G	2,206	795	1,411	2.77
H	911	484	427	1.88
I	1,110	468	642	2.37
J	1,548	860	688	1.80
K	911	653	258	1.40
L	2,874	783	2,091	3.67
M	2,099	690	1,409	2.04
N	2,058	734	1,324	2.80
O	850	549	301	1.54
Q	2,495	480	2,015	5.20
R	1,569	656	913	2.39
S	2,622	704	1,918	3.72
U	1,988	1,193	795	1.67
V	2,729	734	1,995	3.72
W	1,945	647	1,298	3.00
N=20	ΣX=34,062	ΣX=13,901	ΣX=20,161	ΣX=49.95
MEAN	$ 1,703	$ 695	$ 1,008	2.50
MEDIAN	$ 1,757	$ 673	$ 854	2.16

Table 3.19 provides some indication of how the school districts having the highest, median and lowest cost indices allocated their resources in providing special services for this particular target population. Obviously, the teacher-pupil ratio of the high cost index district contributed significantly to the expenditure variance in teacher salaries. Also, small classes utilizing regular classroom space probably account for the variance in operation and maintenance costs.

The Other Instructional Support function includes the salaries of psychologists, curriculum specialists, and other specialized service personnel involved in the special program. Much of the variance in administrative cost may be attributed to the fact that the functional cost is spread over enrollments of varying size. The highest cost index district reported an enrollment of only thirty-three pupils, while the MEDIAN cost index district reported an enrollment of sixty pupils, and the low cost index district reported an enrollment of 131 pupils.

Emotionally Disturbed

It was indicated earlier in this chapter that programs for the emotionally disturbed are often subsumed in other programs, and that portions of this target population may be served in some other sub-program. However constituted, the genesis of problems associated with emotionally disturbed children is believed to be psychological in nature. One school district seemed to incorporate most behavioral manifestations used by other school districts to characterize the target population by identifying emotionally disturbed children as those who exhibit one or more of the following behavior patterns:

a. An inability to learn efficiently which cannot adequately be attributed to intellectual, sensory, neurophysiological, or general health factors.
b. An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
c. Asocial or immature behavior under normal conditions.
d. A general pervasive mood of unhappiness or depression.
e. A consistent propensity to report symptoms of physical discomfort when confronted with multiple stimulus tasks, social contact, and individual performance before peers.[11]

Program planning and development is often directed toward sub-populations of emotionally disturbed children relative to their specific psychological and educational needs, i.e., the behavioral manifestations serve to direct educational and psychological programming. However, the need for educational remediation is common to most sub-populations and provides the basis for program planning and development.

The pervasive goal is to return the child to the regular program. Special emphasis is placed upon behavior modification relative to the needs of the individual. The program further emphasizes good mental health rather than personality reorganization and focuses upon changing dysfunctional behavior through a stimuli controlled environment. Stated program purposes include, among others, assisting the emotionally disturbed child to trust adults, experience pleasure, control aberrant behavior, develop acceptable social values, and develop cognition. Extensive provisions are made for the services of

TABLE 3.19

EXPENDITURE BY FUNCTION FOR SCHOOL DISTRICTS WITH HIGHEST, MEDIAN AND LOWEST PER PUPIL EXPENDITURE RATIOS FOR THE SPECIAL LEARNING DISORDERS

	School District					
	Q (Highest)		I (Median)		K (Lowest)	
Expenditure Category	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index
Management						
Administration	$ 55	2.30	$ 36	1.44	$ 77	1.33
Clerical & Secretarial	18	1.00	9	1.00	33	1.10
Instruction						
Teachers	1,551	5.52	781	2.71	559	1.40
Teacher Aides	---	----	---	----	---	----
Instructional Support						
Supplies & Equipment	45	3.24	18	2.96	25	1.14
Guidance & Counseling	9	1.00	18	2.25	76	3.80
Other	84	6.46	41	8.18	11	1.00
Institutional Operations						
Operation & Maintenance	228	4,76	107	2.13	63	1.00
Fringe Benefits	---	----	---	----	37	1.00
Other	49	1.00	13	1.00	8	1.00
Services						
Health	5	1.00	24	12.00	1	1.00
Food	14	1.00	53	1.00	1	1.00
Transportation						
Cost/Pupil in ADM	437	437.00	10	1.00	20	5.00
TOTAL—Current Operation	$2,495	5.20	$1,110	2.37	$ 911	1.40
Transportation						
Cost/Pupil Transported	$ 547	23.78	NA	----	$ 37	1.00
Capital Outlay/ADM	15	1.00	6	1.00	36	1.00
Debt Service/ADM	21	1.00	73	1.00	25	1.00
Teacher-Pupil Ratio	1:5	----	1:12.7	----	1:16.4	----
Sq. Ft. Classroom Space Per Pupil	143	----	64	----	NA	----

NA - Not Available

psychologists, counselors, and social workers. Family counseling services were identified as an integral part of all program configurations.

Another objective is to provide a curriculum for incarcerated youth directed toward academic remediation and motivation of good behavior, thereby maintaining eligibility for the youth to return to school. One such program provided a half-day work experience and half-day academic experience curriculum leading to a diploma for youth who are wards of the court – successful participation in the program may be a condition of probation for some youth.

Drug-dependent minors not enrolled in the regular program are offered remedial instruction and vocational counseling. The instructional program conforms to the basic provisions of the regular school curriculum and is credited toward requirements for graduation. Organizational configurations include both self-contained classrooms and resource rooms supplemented by itinerant specialists. Self-contained classrooms in all programs are limited to prekindergarten, primary, and intermediate age children in regular schools, and to youth detention centers and special separate facilities for secondary school-age minors. Itinerant operated resource rooms were found at all programming levels. For example, we observed a resource room for junior-high age pupils known as a "crisis room" which was intended to provide an area for students who are "up-tight" on any given day. The avowed purpose is to provide a structure, on a short-term basis, which may circumvent more serious behavioral problems.

Idealized pupil-teacher ratios expressed by teachers varied according to age level and programming configuration and are given in Table 3.20. However, one must realize that it is difficult to project an idealized classload without specifying behavior.

TABLE 3.20

IDEALIZED NUMBER OF PUPILS PER TEACHER FOR THE EMOTIONALLY DISTURBED PROGRAM

	Number of Pupils
Self-Contained Class	
Pre-Kindergarten	4
Primary	5
Intermediate	6
Secondary	10
Itinerant/Caseloads	
Elementary	12 per week
Secondary	15 per week

Case study data necessary for identification, processing, and placement into a program for the emotionally disturbed include parent application, psychiatric evaluation, neurological evaluation, social worker's report, psychological evaluation, and educational history if applicable. Program placements are temporary and subject to immediate review upon recommendation of the classroom teacher. Intelligence levels of all candidates must be above that of the educable mentally retarded and the child must not present a hazard either to himself or to his peers.

Reduced stimuli activities are pre-programmed for elementary age pupils in an attempt to control the emotional interactions of the children engaged in the learning process. Secondary level pupils often use commercially produced, programmed-instruction materials and locally produced syllabi for their academic work.

Self-contained classrooms and resource rooms need to be only about half the size of regular classrooms to accommodate the reduced pupil-teacher loads. No special architectural features were incorporated in the classrooms we observed and instructional equipment was similar to that found in the regular classroom.

Program evaluation was limited to identification of program inputs, and no pupil evaluation designs were identified other than the review process required for re-entry into the regular program or other special program placement.

Table 3.21 identifies the per pupil cost of special programs, the per pupil cost of regular programs, and the cost indices determined for each of the fourteen school districts reporting special programs for the emotionally disturbed. The cost indices ranged from a low of 1.58 to a high of 11.64. Each cost index may be interpreted as representing the district's propensity to support this special program. On the average, the reporting school districts spent 3.7 times more for each pupil in the special program than they spent for each pupil in the regular program, as reflected by the MEAN cost index. The MEDIAN cost index of 2.83 indicates that the expenditure trend was somewhat lower than the MEAN.

TABLE 3.21

PER PUPIL COST INDICES OF PROGRAMS FOR THE EMOTIONALLY DISTURBED

District	A Exceptional Program Cost Per Pupil	B Regular Program Cost Per Pupil	C Differential (A - B)	D Cost Index (A/B)
A	$ 804	$ 509	$ 295	1.58
C	2,559	1,114	1,445	2.30
D	1,425	477	948	2.99
F	6,982	600	6,382	11.64
J	4,019	860	3,159	4.67
K	1,496	653	843	2.29
L	1,493	783	710	1.91
M	1,483	690	793	2.15
O	1,563	549	1,014	2.85
P	3,478	828	2,650	4.20
R	3,904	656	3,248	5.95
S	1,371	704	667	1.95
T	2,759	615	2,144	4.49
W	1,809	647	1,162	2.80
N=14	$\Sigma X=35,145$	$\Sigma X=9,685$	$\Sigma X=25,460$	$\Sigma X=51.67$
MEAN	$ 2,510	$ 692	$ 1,819	3.70
MEDIAN	$ 1,683	$ 655	$ 1,088	2.83

TABLE 3.22

EXPENDITURE BY FUNCTION FOR SCHOOL DISTRICTS WITH HIGHEST, MEDIAN AND LOWEST PER PUPIL EXPENDITURE RATIOS FOR THE EMOTIONALLY DISTURBED

	School District					
	F (Highest)		O (Median)		L (Lowest)*	
Expenditure Category	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index
Management						
Administration	$ 416	7.99	$ 354	8.62	$ 86	1.62
Clerical & Secretarial	110	6.09	15	1.00	61	1.22
Instruction						
Teachers	3,433	10.21	862	2.67	811	2.15
Teacher Aides	---	----	---	----	---	----
Instructional Support						
Supplies & Equipment	128	7.99	27	1.08	67	1.85
Guidance & Counseling	9	1.00	13	1.00	26	1.73
Other	1,911	159.25	1	1.00	110	6.46
Institutional Operations						
Operation & Maintenance	652	9.06	213	3.00	175	1.56
Fringe Benefits	126	6.30	9	2.25	56	1.64
Other	51	1.00	43	1.00	24	1.00
Services						
Health	2	1.00	5	1.00	10	1.30
Food	1	1.00	1	1.00	52	1.00
Transportation Cost/Pupil in ADM	143	13.00	20	2.50	15	1.00
TOTAL—Current Operation	$6,982	11.64	$1,563	2.85	$1,493	1.91
Transportation Cost/Pupil Transported	143	1.88	39	0.69	51	1.00
Capital Outlay/ADM	7	1.00	2	1.00	18	1.00
Debt Service/ADM	29	1.00	76	1.00	42	1.00
Teacher-Pupil Ratio	1:2.7	----	1:8	----	1:11.4	----
Sq. Ft. Classroom Space Per Pupil	242	----	90	----	47	----

* - Expenditure functions of the lowest cost index district could not be computed; therefore, the second lowest cost index district was used for this program.

Table 3.22 contrasts the object-of-expenditures for the school districts computed to have the highest, median, and lowest cost indices. The pupil-teacher ratio of 2.7 to 1 reported for the high cost index district contributes significantly to the variance in teacher salaries between the high district's special and regular program and the between-district variance for the special program. The variance in administrative cost between districts is associated with the differences in program enrollments, as is the variance in expenditures for Other Instructional Support (psychologists and other specialists). Variances in operation and maintenance costs are a function of the number of square feet allocated per pupil. A large allocation of space often is the result of small class enrollments in a special program using classrooms of regular size.

Multiple Handicapped

The purpose of this category was to identify those children who possess more than one handicap and who had not been previously reported in some other program. Educationally, we did not find this to be a useful category. We observed that the child's most educationally inhibiting handicap invariably dictates the primary instructional accommodations to be made. For example, if a child is both blind and orthopedically handicapped, mobility training is a function of innovative techniques developed by the mobility training instructor as the need arises. Consultant services are provided by other special program personnel and, through cooperative arrangements, each handicap is accommodated as the child's educational program develops.

The data that follow represent multiple handicapped children who for some reason have not yet been programmed into the regular program or into another special program. At least two of the programs were quite similar to programs for the orthopedically impaired provided by other school districts. Table 3.23 provides the per pupil cost indices and Table 3.24 provides information with regard to the functional expenditures of the school districts determined to have the highest, median and lowest cost indices for programs for the multiple handicapped.

TABLE 3.23

PER PUPIL COST INDICES OF THE PROGRAM FOR THE MULTIPLE HANDICAPPED

District	A Exceptional Program Cost Per Pupil	B Regular Program Cost Per Pupil	C Differential (A - B)	D Cost Index (A/B)
M	$2,045	$ 690	$1,355	2.96
N	1,837	734	1,103	2.50
S	1,339	704	635	1.90
V	2,830	734	2,096	3.86
N=4	ΣX=8,048	ΣX=2,862	ΣX=5,189	ΣX=11.21
MEAN	$2,013	$ 716	$1,297	2.80
MEDIAN	$1,941	$ 734	$1,229	2.73

TABLE 3.24

EXPENDITURE BY FUNCTION FOR SCHOOL DISTRICTS WITH HIGHEST, MEDIAN AND LOWEST PER PUPIL EXPENDITURE RATIOS FOR THE MULTIPLE HANDICAPPED

	School District					
	V (Highest)		M (Median)		N (Lowest)*	
Expenditure Category	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index	Cost/ Pupil	Cost Index
Management						
Administration	$ 42	1.00	$ 77	2.25	$ 40	1.00
Clerical & Secretarial	41	1.00	77	2.20	34	1.00
Instruction						
Teachers	1,305	3.32	647	2.02	738	2.30
Teacher Aides	---	----	267	64.30	250	250.00
Instructional Support						
Supplies & Equipment	54	1.00	36	1.00	55	2.89
Guidance & Counseling	9	1.00	11	1.00	8	1.00
Other	9	1.00	368	10.52	3	1.00
Institutional Operations						
Operation & Maintenance	668	8.90	99	1.00	378	7.00
Fringe Benefits	60	1.71	76	3.30	119	2.76
Other	52	1.00	56	1.00	168	1.00
Services						
Health	5	1.00	---	----	2	1.00
Food	1	1.00	47	2.13	30	1.00
Transportation						
Cost/Pupil in ADM	584	30.73	284	17.75	12	1.00
TOTAL–Current Operation	$2,830	3.86	$2,045	2.96	$1,837	2.50
Transportation						
Cost/Pupil Transported	$ 584	13.27	$ 365	2.57	$ 25	1.00
Capital Outlay/ADM	9	1.00	18	1.00	28	1.00
Debt Service/ADM	12	1.00	111	1.00	43	1.00
Teacher-Pupil Ratio	1:9	----	1:12	----	1:10	----
Sq. Ft. Classroom Space Per Pupil	267	----	30	----	210	----

* - Expenditure functions of the lowest cost index district could not be computed; therefore, the second lowest cost index district was used for this program.

Cooperative Programs

It was noted earlier that we identified some school districts which have developed cooperative arrangements whereby programs for exceptional children are offered on a tuition basis by one or more school districts in the cooperative. We also visited three intermediate educational units which provided programs for exceptional children and vocational programs to youth living in a particular attendance area (a county, or other geographically defined unit – usually several coterminous school districts).

In order to compare the cost of programs for exceptional children to the cost of a regular program (which intermediate units do not offer), we compared the special program costs of the intermediate unit with the average regular program expenditure reported by the school districts being served by the intermediate unit. It may be of interest to note that none of the intermediate units were found to have the highest cost index for any of the special programs.

SECTION B

RESIDENTIAL SCHOOL PROGRAMS FOR EXCEPTIONAL CHILDREN

During the initial contact with state department of education personnel in the sample of states, in addition to identifying school districts providing comprehensive and high quality programs for exceptional children, we sought to identify both private and state-operated residential programs within our *a priori* taxonomy of programs for exceptional children. A letter explaining the nature of this study was sent to each of the residential schools which were identified, and their participation in the study was solicited. The responses to our initial inquiry included several offers to cooperate, and several responses of "maybe" or "not at this time." In addition, there were several non-respondents. Follow-up letters were sent to the non-respondents, the "maybe's," and the refusals detailing our needs and expectations and further soliciting their cooperation.

It became immediately obvious, after telephone conversations with private schools (none had responded to our correspondence), that detailed financial data would not be available from the private residential programs. It also became obvious that several state institutions would not or could not provide the required data. Therefore, we were able to obtain cost data on only seven state residential institutions – which represents considerably less than 50 percent of the residential programs contacted. It is NOT a purpose of this study to contrast and/or compare programs for exceptional children offered by local school districts and cooperatives with those offered by private or state residential schools. However, we do maintain an academic interest in the economics of alternative programming, as well as an interest in the sociological consequences concomitant to the selection of various programming configurations for educating exceptional children.

We are convinced that, except for a few cases which will be identified, it is in the best interest of children needing special educational services to provide those services on a day-care basis in or near the child's regular school attendance district. However, we are just as convinced that state institutions which provide both short-term and long-term residential services play a significant role in the rehabilitation of the handicapped through their humanization, socialization and physical training programs.

Residential training centers are expensive to operate, as we will subsequently demonstrate. However, to provide adequately for the special needs of some target populations seems to require high impact treatment which may best be offered at residential schools.

Four categories of programs for exceptional children are included among the institutions which responded to our request for information. These are: (1) the Severely Emotionally Disturbed, (2) the Neurologically Impaired, (3) the Deaf, and (4) the Blind.

Severely Emotionally Disturbed

The target population of residential programs for severely emotionally disturbed children is not unlike that described in connection with local school district programs – except perhaps in degree of severity. It was reported that, in a typical year, approximately 85 percent of the admissions to residential programs are court or welfare department commitments. The remaining admissions result from referrals by psychiatric clinics or private psychiatrists. The most common diagnoses made at the time of admission to the program are character disorder (including character neurosis), borderline state, and schizophrenia. Behavioral manifestations leading to admission include, but are not limited to, incorrigibility at home, asocial behavior at school (when not truant), sex delinquency, and other emotionally-based social delinquencies (e.g., vandalism and theft). The number of admissions of males 8 to 18 years of age is approximately four times the number of admissions of females 13 to 18 years of age. The mean age is 15 years with over one-third of the student population 16 years of age or older (the legally permissible drop-out age in many states).

The average length of participation in the residential program for severely emotionally disturbed youth is less than two years. However, it has been observed that those admitted at the younger age levels tend to possess more severe difficulties and consequently require protracted programming.

Program planning and development in the residential school is similar to that found in any high quality school district. Instruction develops through the efforts of the teacher to adapt materials especially for the child's needs, program tasks to the child's tempo, protect the child from failure, and provide the child with a hierarchy of successes when dealing with prescribed concepts.

During the early stage of the child's stay in the residential school for the severely emotionally disturbed, it is often necessary to rely heavily upon concrete forms of behavioral modification(e.g., using food and other "things" as rewards). Gradually, as trust and respect become manifested, more intangible and abstract forms of stimuli may be used in the behavior modification program.

Group testing demonstrated one-third of the target population to be two or more years retarded in reading and three-fourths of the target population to be two or more years retarded in arithmetic concepts. In tested intelligence the target population approximates a normal distribution with some skewing toward the above average range.

No reports were made available relative to program evaluation.

In Table 3.25 we have identified certain cost factors associated with providing residential services for severely emotionally disturbed children. Unlike the special programs described earlier in this chapter, we cannot relate special program costs to regular program costs because the institutional program is a multi-dimensional "regular" program for the specified target population. One should not attempt to compare residential program costs with costs associated with programs for emotionally disturbed children provided by local school districts – the target populations are different. However, a residential program per pupil cost of $5,809 should provide some impetus for local school districts to identify early and serve quickly mild cases of emotional disturbance and thus

TABLE 3.25

COST FACTORS OF RESIDENTIAL PROGRAMS FOR THE SEVERELY EMOTIONALLY DISTURBED

	Cost/Pupil
Management	
Administration	$ 452
Clerical & Secretarial	232
Instruction	
Teachers	2,232
Teacher Aides	202
Instructional Support	
Supplies & Equipment	452
Guidance & Counseling	331
Other	78
Institutional Operations	
Operation & Maintenance	618
Fringe Benefits	992
Other	149
Services	
Health	---
Food	---
Transportation	
Cost/Pupil in ADM	71
TOTAL–Current Operation	$5,809
Capital Outlay/ADM	
Debt Service/ADM	13
Teacher-Pupil Ratio	1:5

(hopefully) reduce the heavy input of human and fiscal resources needed to serve the more severe cases of emotionally disturbed children.

The pupil-teacher ratio of five students per teacher necessitated an expenditure of $2,232 per pupil for teacher salaries in 1968-69. One teacher aide was available for approximately each five teachers and one administrator-supervisor for each ten teachers. The "Other Instructional Support" cost of $78 per pupil was for psychiatric services.

Neurologically Impaired

The purposes of residential care centers for neurologically impaired youth are to provide both educational and health services for the target population. Essentially, the patient is enrolled in the residential program to learn self-care or a close approximation thereto. Therapy is not directed toward recovery but toward accommodating the various manifestations of the neurological disorder; therefore, goals are flexible enough to adapt to changes in the patient's physical abilities.

Educational goals for pre-school age children (usually spina biafida cases) consist of reading readiness and socialization skills as well as extensive training in muscular coordination. Special instructional materials are used for those children whose physical or perceptual difficulties require special programming. The same is true for elementary and secondary school age children although there is some attempt to coordinate their curriculum with their school of regular attendance.

Like the homebound/hospital program discussed earlier, the residential-care center provides for a mobile target population. The long-term enrollment of the reporting centers constituted only 11 percent of their total enrollment.

Table 3.26 identifies various cost factors associated with residential care programs for the neurologically impaired. The pupil-teacher ratio of six pupils per teacher was developed by considering only the long-term enrollments relative to the size of the teaching staff. However, teacher salaries were spread over the total target population consequently lowering the cost per pupil for that cost factor rather substantially. For example, based on the total enrollment the cost per pupil for teacher's salaries is identified as $217 in Table 3.26. However, if teacher salaries were distributed only over the long-term enrollment (approximately 1,170), then the cost per pupil would amount to $1,935. The latter figure probably is more realistic since short-term enrollments receive mostly health and "Other Instructional Services" (psychologist and therapist).

Based on total enrollments, the pupil-teacher ratio is 55:1; the pupil-teacher aide ratio is 121:1; the pupil-specialists (psychologist, therapists, etc.) ratio is 23:1; and the pupils per teacher and specialist was found to be 16.4 pupils per professional.

Deaf and Severely Hard of Hearing

The purpose of state-operated residential programs for the deaf and severely hard of hearing is to provide the specialized education needed by children who, because of their hearing impairments, are unable to benefit satisfactorily from the regular public school program. We have explicated earlier our findings regarding the services offered to the deaf and severely hard of hearing by a sample of public school districts. The curricular opportunities available at state-operated residential schools for the auditorily handicapped do not vary significantly from those provided in most high quality public school district programs.

The residential program emphasizes communication skills; and since deafness impairs the natural development of these skills, special techniques for developing communication are employed. Auditory training (hearing conservation for children with residual hearing) includes use of prosthetic appliances, speech development, lip reading, regular reading, and writing. Those children assessed to have non-functional auditory abilities are, in addition to the above, provided instruction in finger spelling. Curricular programming varies from basic minimum learnings for functional everyday living to preparation for technical or college

TABLE 3.26

COST FACTORS OF RESIDENTIAL PROGRAMS FOR THE NEUROLOGICALLY IMPAIRED

	Cost/Pupil
Management	
Administration	$ 143
Clerical & Secretarial	197
Instruction	
Teachers	217
Teacher Aides	55
Instructional Support	
Supplies & Equipment	20
Guidance & Counseling	46
Other	221
Institutional Operations	
Operation & Maintenance	300
Fringe Benefits	219
Other	619
Services	
Health	303
Food	208
Transportation	
Cost/Pupil in ADM	3
TOTAL—Current Operation	$ 2,551
Capital Outlay/ADM	33
Debt Service/ADM	- - -
Teacher-Pupil Ratio	1:6

education. A comprehensive curriculum provides for all grade levels and in some cases provides pre-kindergarten experiences on a day-school basis. It was noted in our discussion of public school district services to the deaf and severely hard of hearing that some school districts recommend transfer of deaf students to the state residential school for vocational training if the child is not making satisfactory progress by the time he reaches age 14. The state residential schools also offer a wide range of vocational education offerings to young adults and provide vocational counseling and job placement through a state agency such as a Division of Vocational Rehabilitation.

Table 3.27 identifies the cost factors associated with three reporting state residential schools for the deaf and hard of hearing. The cost of current operations for 1968-69 ranged from $3,951 per pupil to $5,457 per pupil. Program B, the median expenditure program, reported the smallest full-time equivalent enrollment.

TABLE 3.27

COST FACTORS OF RESIDENTIAL PROGRAMS FOR THE DEAF

		Program	
	A	B	C
	Cost/Pupil	Cost/Pupil	Cost/Pupil
Management			
Administration	$ 226	$ 78	$ 310
Clerical & Secretarial	239	179	136
Instruction			
Teachers	1,528	923	1,129
Teacher Aides	---	6	78
Instructional Support			
Supplies & Equipment	62	95	46
Guidance & Counseling	---	849	15
Other	80	133	607
Institutional Operations			
Operation & Maintenance	1,277	864	721
Fringe Benefits	550	398	278
Other	935	91	211
Services			
Health	71	51	51
Food	483	498	351
Transportation			
Cost/Pupil in ADM	6	30	18
TOTAL–Current Operation	$5,457	$4,195	$3,951
Capital Outlay/ADM	$ 194	$ 33	$ 153
Debt Service/ADM	---	---	---
Teacher-Pupil Ratio	1:6	1:6	1:7

Program evaluation is provided by the State Department of Education and typically provides for inspection teams, consisting of state department consultants who visit the residential schools periodically. The residential schools also hire nationally known consultants when the need arises for identifying alternative approaches within special areas of their educational programming.

Blind

The purpose of state-operated residential programs for the blind is to provide the specialized services needed by those visually impaired children who cannot benefit from or do not have access to services offered by local school districts. The latter part of the foregoing statement indicates the rationale for continued existence of state-operated residential schools.

We take issue with those professionals quoted earlier in this chapter to the effect that state residential schools for the blind have outlived their usefulness. We cite three reasons: (1) many school districts do not have a large enough population of blind children to support a qualified staff (assuming specialized staff is available); (2) the nonschool environment of blind children may not offer the required reinforcement of the training program which can be accomplished in a residential school; and (3) the residential schools most often deal with severe cases of blind children whose instruction may be complicated by other impairments (e.g., deafness, below normal intelligence, etc.) or previously neglected educational programming. We were delighted to see cooperatives (groups of school districts) and intermediate educational agencies providing comprehensive services to the blind and thus allowing the children to remain in the fulltime care of their parents. However, the role of the residential school is not negated because of the extended local services although the enrollment rate in residential schools of children who are blind-only has decreased somewhat in recent years. That decrease is due to extended local services and to a decrease in the incidence rate of blindness which is attributed to more sophisticated medical

TABLE 3.28

CAUSES OF BLINDNESS FOR CHILDREN ENROLLED IN A STATE RESIDENTIAL SCHOOL DURING 1967-68

Cause	Number of Cases	Percent of Enrollment
Retrolenta Fibroplasia	104	56
Cataracts	19	10
Glaucoma	15	8
Optic atrophy	8	4
Myopia	6	3
Retinoblastonia	6	3
Amblyopia	4	2
All Others	24	13
TOTAL	186	99

practices. Table 3.28 identifies the causes of blindness of children enrolled in one state residential school during 1967-68. However, another reporting residential program identified only 11 percent of their enrollment as blind-only, while 23 percent of their pupils were deaf and blind and 67 percent were multi-handicapped (including blind).

The educational program planning and development is not unlike that found in the high quality regular programs in local school districts, although the techniques employed to achieve the cognative, affective, and conative objectives are somewhat different. Training directed toward the maximum use of residual senses (e.g., taste, touch, smell, etc.) is central to the educational development of the blind. Braille, serving as the foundation of the reading system, is introduced early in the primary program and is emphasized throughout the formal

TABLE 3.29

COST FACTORS OF RESIDENTIAL PROGRAMS FOR THE BLIND

	Program	
	A* Cost/Pupil	B Cost/Pupil
Management		
Administration	$ 288	$ 370
Clerical & Secretarial	212	130
Instruction		
Teachers	2,951	1,444
Teacher Aides	- - -	46
Instructional Support		
Supplies & Equipment	60	34
Guidance & Counseling	2,249	33
Other	128	708
Institutional Operations		
Operation & Maintenance	1,132	781
Fringe Benefits	721	290
Other	290	19
Services		
Health	556	60
Food	812	385
Transportation		
Cost/Pupil in ADM	111	39
TOTAL—Current Operation	$9,510	$4,339
Capital Outlay/ADM	$ 113	$ 60
Debt Service/ADM	- - -	- - -
Teacher-Pupil Ratio	1:4	1:5.4

* - Includes enrollments of blind (10%), deaf and blind (23%) and multiple handicapped (67%).

instructional program. Braille writing, typing, and use of the abacus are among the manual dexterity skills developed in the elementary school program along with survival skills needed for daily living.

One program evaluation report made by state department consultants called for the identification and explication (in the form of curriculum guides) of student goals and objectives for all levels of programming. That would indeed be unique, for we suspect that very few school districts have yet established a comprehensive set of goals and objectives for their regular program. Possibly the blind could lead the way!

Table 3.29 displays the cost factors associated with two residential programs for the blind. Program A spent over twice as much per pupil in 1968-69 as did Program B. However, the large enrollment of multi-handicapped blind children in Program A accounts for the higher cost per pupil and negates any fortuitous comparisons of the cost of the two reporting programs.

FOOTNOTES

1. Florida State Department of Education, GUIDELINES, COUNTY PLAN FOR THE PROVISION OF SPECIAL EDUCATION PROGRAMS FOR EXCEPTIONAL CHILDREN AND YOUTH (Tallahassee: Florida State Department of Education, 1968); also see, Florida Statutes, Chapter 130-6, 3ff.

2. See LAWS AND REGULATIONS RELATING TO EDUCATION AND HEALTH SERVICES FOR EXCEPTIONAL CHILDREN IN CALIFORNIA (Sacramento: California State Department of Education, 1969).

3. Donald J. Kincaid, OBJECTIVES OF EDUCATION FOR GIFTED CHILDREN IN CALIFORNIA ELEMENTARY SCHOOLS, No. 2 of a series approved by the Committee on Research Studies (Los Angeles: Los Angeles Unified School District, April 1956).

4. Mary Broderick Hill, ENRICHMENT PROGRAMS FOR INTELLECTUALLY GIFTED PUPILS (Sacramento: California State Department of Education, 1969).

5. Also see SCHOOL MANAGEMENT, December 1967, p. 51.

6. California State Department of Education, PROGRAMS FOR THE TRAINABLE MENTALLY RETARDED IN CALIFORNIA PUBLIC SCHOOLS (Sacramento: California State Department of Education, 1966), pp. 87ff.

7. S. Richard Silverman, "Clinical and Educational Procedures for the Hard of Hearing," in HANDBOOK OF SPEECH PATHOLOGY, Lee Edward Travis (ed.), (New York: Appleton-Century-Crofts, Inc., 1957).

8. Alice Streng, CHILDREN WITH IMPAIRED HEARING (Washington, D.C.: Council for Exceptional Children, 1960).

9. Roger Reger, "'Brain Injury' and Brain Injury," PSYCHOLOGY IN THE SCHOOLS, VI, (April 1969), 158-161.

10. Programs for Drug Dependent Minors are designed specifically for the target population who have engaged in drug usage and does not include drug-information instructional units now found in health and social studies programs among many school districts.

11. This taxonomy represents a restatement on our part of materials generously provided by the Dade County, Florida School District.

CHAPTER IV

FINANCING PROGRAMS FOR EXCEPTIONAL CHILDREN: RETROSPECT AND PROSPECT

In preceding chapters of this report we have reviewed the background from which the study was generated, explained the rationale and procedures which were employed, and presented the findings obtained from the analyses of special programs and their associated costs in various school settings. In this concluding chapter we shall briefly summarize and interpret our findings with regard to program costs, attempt to forecast the cost of educating exceptional children over the next decade, and examine some factors which we suspect may significantly affect both the need for and the cost of educational programs for exceptional children.

We wish to emphasize again that the data we have reported were obtained from systematic field studies which we conducted in twenty-four school systems located in five states. These school systems were recommended to us as being representative of school systems which provide educational programs of high quality for exceptional children. These districts *do not* represent a random sample of school districts, and we do not claim that the programs we observed represent average current practice in educational programs for exceptional children. To the contrary, we believe that the school systems we observed were indeed providing many high quality programs for exceptional children. We observed several programs which we would recommend that any district desiring to provide a high quality program for exceptional children seek to emulate. Thus, we believe that the data presented in this report afford a defensible basis for fiscal and program planning to meet the educational needs of exceptional children in 1980.

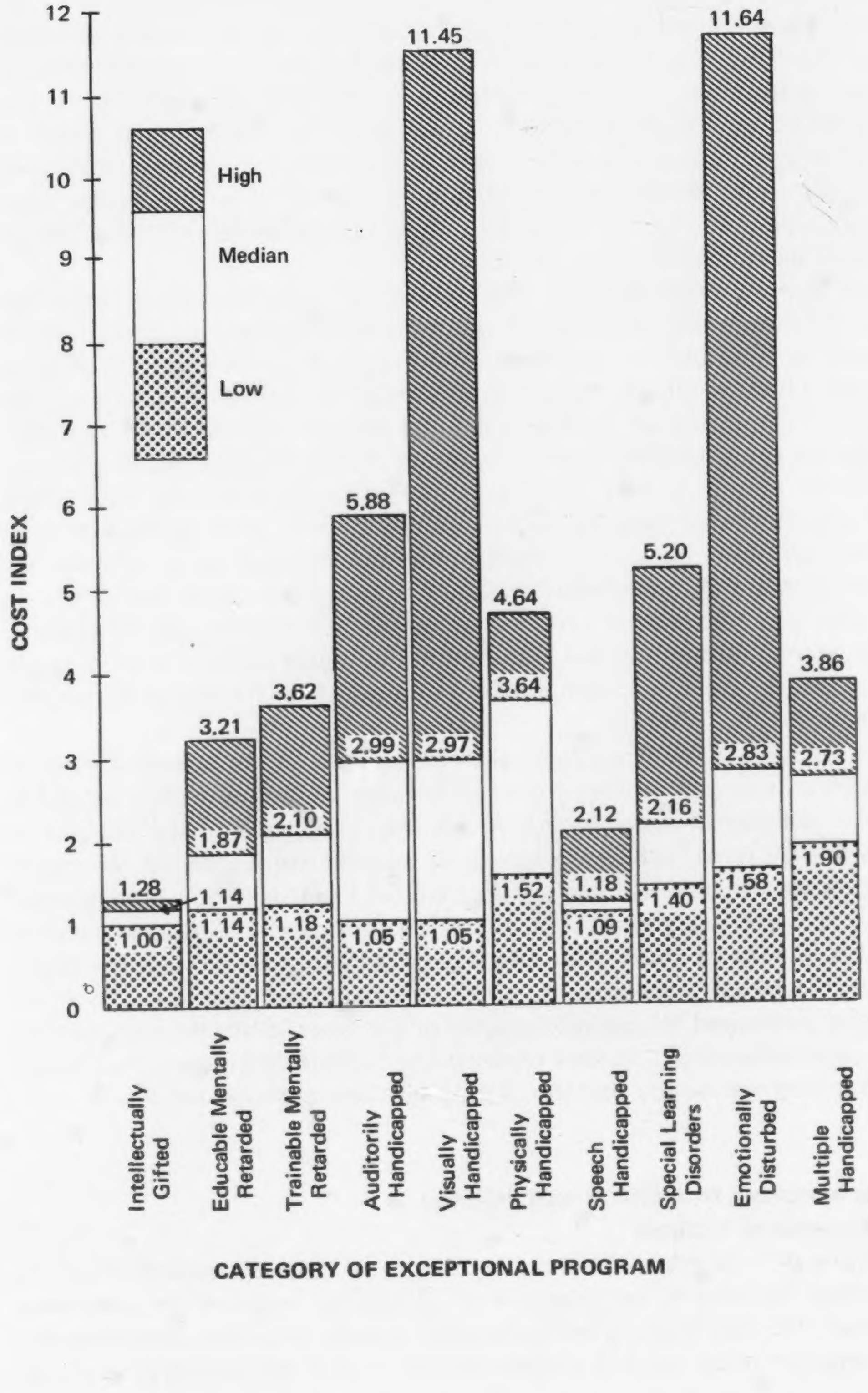
In addition to the limitations which are imposed by our sample, it must be recognized that data regarding the configuration of resources being applied in special educational programs for exceptional children are very difficult to obtain. The fiscal, personnel, and pupil records maintained by the school districts which comprised our sample were not maintained on a programmatic basis. It often was necessary to virtually reconstruct existing school district records in order to obtain these data on a program-by-program basis. Obviously, arbitrary decisions were necessary in this process. Nevertheless, we are confident that we maintained the essential integrity of our data and that the program costs and cost indices which we have reported approximate very closely the true cost of providing high quality educational programs for exceptional children.

Costs Associated With Educational Programs for Exceptional Children

Figure 4.1 illustrates the low, median, and high cost indices which we identified for each of ten categories of educational programs for exceptional children. The cost index, it will be recalled, represents the relationship between the expenditure per pupil in a school district's regular educational program and

FIGURE 4.1

COST INDICES BY PROGRAM FOR SCHOOL DISTRICTS HAVING THE HIGHEST, MEDIAN, AND LOWEST COST INDEX FOR EACH CATEGORY OF EXCEPTIONAL PROGRAM



the expenditure per pupil in a special educational program. For example, a cost index of 2.0 indicates that a district is spending twice as much per pupil in a special program as it spends per pupil in its regular program. Unlike a per-pupil expenditure, which tends to be both time-bound and place-bound, a cost index has the advantage of permitting gross comparisons to be made among and between districts, and within a district over time. By referring to the data presented in Chapter III relative to the distribution of expenditures by function in the high, median, and low districts for each exceptional program, and by referring to the complex expenditure data for each school district which will be found in Appendix C, the reader may obtain information on how each district chose to allocate its resources among a number of functional expenditure categories.

In no instance was the district which had the lowest cost index in a given category spending more than twice as much per pupil in that special program category as it was spending per pupil in its regular program. The cost index for the lowest district in each program category varied from a low of 1.0 (intellectually gifted) to a high of 1.90 (multiple handicapped). Thus, the school district which reported the lowest cost index for programs for intellectually gifted pupils was spending the same amount per pupil in this program as it was spending for each pupil in its regular program. It must be remembered, however, that in the case of both the intellectually gifted category and the multiple handicapped category, the sample included only a few districts which provided such programs.

We do not recommend that either fiscal or program planning be based on the lowest cost indices that we reported for each program. Based upon knowledge and insights gained from our interviews with personnel and from our observations in one or more classrooms in each program category in each of the school districts included in the sample, we do not believe that the lowest cost index programs provide appropriate models for program and fiscal planning over the next decade. We did not find them to be exemplary programs.

Turning to the highest cost index districts in each program category, it will be noted that the high cost indices ranged from a low of 1.28 in the intellectually gifted category to a high of 11.64 in the emotionally disturbed category. In a majority of the special programs, especially those which are relatively well-established, the range between the lowest and highest cost index district was not extreme – generally in the range of two or three to one. Closer examination of the extremely high cost index programs revealed that either the program was relatively new and still being developed, or that it served a small number of pupils with a consequent high cost per pupil, or that it emphasized very intensive work with pupils as reflected in a very low pupil-professional staff ratio. Thus, we believe that the high cost index programs also do not provide an appropriate base for fiscal planning, although some of them may represent programs which are indeed on the "cutting edge".

We believe that the median cost index programs afford the soundest basis for fiscal planning and forecasting. These programs tend to reflect what might be termed average practice in a set of school districts chosen because they were recognized as providing high quality programs for exceptional children. The median cost indices ranged from 1.14 in the program for intellectual gifted pupils to 3.64 in the program for physically handicapped pupils.

Costs by Program Category

Data concerning programs for intellectually gifted pupils were obtained from five school districts. The highest reported expenditure per pupil for this program was $872; the lowest reported expenditure per pupil was $548; the mean expenditure per pupil was $759; and the median expenditure per pupil was $809. Examination of the components of expenditures for these programs revealed that the greatest variation from the regular program in cost per pupil occurred for the functions of management and instruction.

A total of twenty-two districts reported data concerning expenditures for programs for educable mentally retarded pupils. Expenditure per pupil ranged from a high of $2,358 to a low of $708. The mean and median cost per pupil were identical – $1,316. Expenditures for instruction constituted the largest single component of the expenditures made for programs for educable mentally retarded pupils. However, the greatest variance from expenditures per pupil for regular programs occurred for the functions of management, instructional support (including specialized personnel), and transportation.

Twenty-two school districts provided data on educational programs for trainable mentally retarded children. The highest expenditure reported was $2,657 per pupil; the lowest expenditure reported was $562 per pupil; the mean expenditure per pupil was $1,532; and the median expenditure per pupil was $1,627. Instruction again constituted the largest single component of expenditures in this program category. Major differences from expenditures per pupil in the regular program occurred for the functions of instructional support, institutional operations, and transportation.

Eighteen districts provided programs for auditorily handicapped pupils. The highest reported expenditure per pupil for such programs was $4,671 and the lowest reported expenditure per pupil was $533. The mean expenditure per pupil was $2,067, while the median expenditure per pupil was $2,103. The largest single component of expenditure was for the function of instruction. The greatest variances from expenditure per pupil for the regular program occurred for the functions of instructional support, institutional operation, and transportation.

Programs for visually handicapped pupils were reported by seventeen school districts. Expenditure per pupil ranged from a high of $9,105 to a low of $852; the mean expenditure per pupil was $2,448; the median expenditure per pupil was $2,197. The expenditure for instruction again was the largest single component of expenditures. Substantial additional expenditure per pupil relative to expenditure per pupil in the regular program characterized virtually all functions except health and food services.

A total of fifteen school districts reported data on programs for physically handicapped pupils. The highest reported expenditure per pupil was $4,210; the lowest reported expenditure was $713 per pupil; the mean expenditure per pupil was $2,197; and the median expenditure per pupil was $2,113. Again, the expenditure for instruction was the largest single component of expenditure. A large variance in expenditure per pupil relative to expenditure per pupil in the regular program was reported for the functions of instructional support (especially for other specialized personnel), institutional operation, and transportation.

A total of twenty-one programs for speech handicapped pupils were reported. The highest expenditure per pupil reported was $1,027; the lowest reported expenditure was $541 per pupil; the mean expenditure per pupil was $794; and the median expenditure per pupil was $799. The largest cost differential was associated with the function of instructional support (primarily expenditures for other specialized personnel).

Twenty districts reported data regarding programs for pupils with special learning disorders and/or neurological handicaps. The expenditure per pupil for these programs ranged from a high of $2,874 to a low of $850. The mean expenditure per pupil was $1,703 and the median expenditure per pupil was $1,757. The expenditure for instruction again was the largest single component of expenditure in these programs. The largest differences in expenditure per pupil relative to the regular program were associated with the functions of instruction and instructional support.

Data regarding expenditures for programs for emotionally disturbed pupils were reported by fourteen districts. Expenditures for this program ranged from a high of $6,982 per pupil to a low of $804 per pupil. The mean expenditure per pupil was $2,510; the median expenditure per pupil was $1,683. The expenditure for instruction again was the largest single component of expenditure. The largest variations in expenditure per pupil relative to the regular program were associated with the functions of management, instruction, instructional support, institutional operation, and transportation.

Only four districts provided special programs for multiple handicapped pupils. The highest expenditure per pupil reported was $2,830 per pupil; the lowest expenditure reported was $1,339 per pupil; the mean expenditure per pupil was $2,013; and the median expenditure per pupil was $1,941. The expenditure for instruction once again constituted the largest single component of expenditure. The largest variations in expenditure per pupil relative to the regular program were associated with the functions of instruction, institutional operation, and transportation.

Costs by Function

Just as was the case in programs for regular pupils, the expenditure for the function of instruction (salaries of teachers and teacher aides) represented the largest single component of expenditure for special education programs for exceptional children. Our data also revealed that the cost of transporting some types of handicapped pupils tends to be very high. This is especially true in the case of crippled children, where specially equipped buses frequently must be provided. In those districts which reported a minimal expenditure per pupil for transportation, we noted that in nearly all cases the district did not make special transportation arrangements for handicapped pupils, leaving this as a parental responsibility.

Expenditure for the function of instructional support included the expenditure for guidance and counseling personnel and for other specialized personnel such as therapists, doctors, nurses, and the like. The expenditure for instructional support was an important component of expenditure in several programs where extensive use was made of such personnel.

The expenditure for institutional operation was directly related to class size. In most instances, the classrooms we observed being used for special education programs were regular classrooms which had been converted to such use. The lower pupil-teacher ratio which typically prevails in special education programs results in a larger square footage per pupil and thus increases the cost of operation and maintenance on a per pupil basis.

Consistency of Cost Indices

Bentley[1] utilized data obtained from the sixteen school districts included in the sample for which complete information on expenditures for various components of the regular educational program were available to examine the nature and consistency of the cost differentials which existed between educational programs for exceptional children and regular educational programs. With regard to the expenditure components which contributed to cost differentials in programs for exceptional children, Bentley found that only expenditures for clerical and secretarial services, and expenditures for food services did not contribute significantly to the cost differentials which existed between regular programs and special educational programs for exceptional children. All of the other expenditure components (administration, fringe benefits, instructional supplies and equipment, operation and maintenance, supportive services, teachers, teacher aides, and transportation) were found to contribute significantly to the cost differentials. However, the degree to which the various expenditure components contributed to the cost differentials varied considerably from district to district and from program to program.

Regarding the consistency and stability of the cost indices between regular and exceptional programs, Bentley found that only in the programs serving educable and trainable mentally retarded children were the cost indices consistent and stable between districts. With the exception of these two program categories, no consistent relationship was found between the level of spending by a district for its regular program and the level of spending by a district for the various categories of exceptional programs.

Bentley also found reason to suspect that a relationship exists between expenditure per pupil in special education programs and the type of support provided by the state for special education (i.e., categorical aid vs. general aid for special education). Districts located in states which provided general aid were spending at a lower level than those located in states which provided categorical aid. However, the small sample size and the selective nature of the sample precluded a definitive statement regarding the relationship between type of state support for special education programs and the expenditure per pupil in such programs.

Marginal Cost of Special Education Programs

Table 4.1 illustrates how the cost indices of the special educational programs identified in this study may be employed to determine the marginal cost of each special education program in a district in which the expenditure per pupil for the regular program is $655 (the median regular program cost in the districts in our sample). Column C (the product of Column A and Column B) represents the expected per pupil expenditure for each special program in a school district which is spending $655 per pupil in the regular program. (Admittedly, not many school districts spend exactly $655 per pupil in their regular program, but a known local figure could easily be inserted for computational purposes.) Column D, the difference between Column C and Column B, may be interpreted as representing the marginal per pupil cost of enrolling each additional pupil in a given program. For example, each additional pupil placed into a program for auditorily handicapped pupils can be expected to increase the fiscal burden of the school district in the amount of $1,303. If a new auditorily handicapped pupil were to move into the school district, then the additional cost would be $1,958. Thus, Column C may be interpreted as representing the marginal cost to the district of new pupils who require placement in the special program.

TABLE 4.1

ANTICIPATED PER PUPIL EXPENDITURE AND MARGINAL COST PER PUPIL IN SPECIAL EDUCATIONAL PROGRAMS FOR EXCEPTIONAL CHILDREN BASED UPON THE MEDIAN REGULAR PROGRAM COST OF DISTRICTS IN THE SAMPLE

Category of Exceptionality	A Cost Index	B Median Regular Program Cost	C Special Program Expenditure (AxB)	D Marginal Cost of Special Program (C-B)
Gifted	1.14	$655	$ 747	$ 92
Educable Mentally Retarded	1.87	655	1225	570
Trainable Mentally Retarded	2.10	655	1376	721
Auditorily Handicapped	2.99	655	1958	1303
Visually Handicapped	2.97	655	1945	1290
Speech Handicapped	1.18	655	773	118
Physically Handicapped	3.64	655	2384	1729
Special Learning Disorders	2.16	655	1415	760
Emotionally Disturbed	2.83	655	1854	1199
Multiple Handicapped	2.73	655	1788	1133
Homebound/Hospital	1.42	655	930	275

The Cost of Educating Exceptional Children in 1980

To forecast the cost of educating exceptional children in 1980, one must have some knowledge of the prevalence of the various types of exceptionality. Unfortunately, the number of exceptional children in the United States has not accurately been established. There have been no comprehensive national studies to establish the prevalence of exceptional children on the basis of census information. The problem of determining the prevalence of children who may be classified under each of the various categories of exceptionaltiy is further complicated by the variations in the definition and criteria for identification of each exceptionality that exist among the states, by variations in the prevalence of various exceptionalities that occur from one area to another, and by incomplete data.

Prevalence Rates

In Table 4.2 are displayed various estimates of the prevalence of several types of exceptionality in the United States. The first widely used estimates were those by Mackie and Dunn which were published in 1954 and are still used as a basis of estimation in several states. Their estimates are shown in Column A of Table 4.2.

In Column D of Table 4.2, we report the range of estimates provided by eleven states in conjunction with a project dealing with state surveys and information analysis which is being conducted by Operations Research, Inc., for the Bureau of Education for the Handicapped, U.S. Office of Education.[2] (The other thirty-nine states were still using the Mackie and Dunn estimates as a basis for their forecasting.) Perhaps the most disappointing aspect of the data presented in Column D is the wide range of prevalence reported for most exceptionalities.

In columns E, F, and G of Table 4.2 we present estimates based on data obtained from recent studies in California and Wisconsin, and from the twenty-four districts sampled in this study. The data forms employed in this project not only provided for obtaining information concerning the number of children currently enrolled in the various programs, they also provided for obtaining estimates by school district personnel of the number of children in the district who were eligible for each program but who were not currently being served. The studies in California and Wisconsin also attempted to approximate as closely as possible the total number of exceptional children in each state.

The extent of agreement among these three sources regarding prevalence rates in the categories where no serious definition problem is involved is impressive. The variations in the prevalence rates reported for the educable mentally retarded, the trainable mentally retarded, the auditorily handicapped, and the visually handicapped categories are very small.

The prevalence rate of pupils served by programs for the speech handicapped in our sample districts is higher than the rate estimated from data provided by California and Wisconsin studies. However, it is likely that the programs provided by the districts in our sample involved more children with relatively minor speech handicaps than would the program in an average school district. The data obtained from the districts in our sample are considered to provide the

TABLE 4.2

ESTIMATES OF THE PREVALENCE OF VARIOUS TYPES OF EXCEPTIONALITY IN THE UNITED STATES

	Estimates of Prevalence (%)							
Category of Exceptionality	A	B	C	D	E	F	G	H
Gifted	2.0	2.0	N.E.	N.E.	N.E.	N.E.	2.70	2.00
Educable Mentally Retarded	2.0	2.3	2.3	2.0-4.0	1.30	1.28	1.10	1.30
Trainable Mentally Retarded				0.2-0.3	0.187	.18	0.24	0.24
Auditorily Handicapped	1.5	0.075	0.575	0.5-2.0	0.10	.08	0.10	0.10
Visually Handicapped	0.2	0.093	0.1	0.05-0.25	0.05	.03	0.05	0.05
Speech Handicapped	2.0	3.5	3.5	3.5-7.8	1.98	2.40	3.60	3.60
Physically Handicapped	1.5	1.0	0.5	0.1-1.0	0.028	0.028	0.21	0.21
Neurological and Special Learning Disorders	N.E.	N.E.	1.0	0.3-2.0	0.50	0.026	1.12	1.12
Emotionally Disturbed	2.0	2.0	2.0	1.0-2.2		0.05	0.58	2.00
Multiple Handicapped	N.E.	N.E.	N.E.	N.E.	0.07	0.029	0.029	0.07
TOTAL	11.2	10.968	9.975	7.65-19.55	4.215	4.103	9.729	10.69

N.E. = No estimate

a. Estimates by Romaine P. Mackie and Lloyd M. Dunn, COLLEGE AND UNIVERSITY PROGRAMS FOR THE PREPARATION OF TEACHERS OF EXCEPTIONAL CHILDREN, USOE Bulletin No. 13, Washington, D.C., GPO, 1954.

b. Estimates by Romaine P. Mackie, Harold M. Williams and Patricia P. Hunter, STATISTICS OF SPECIAL EDUCATION FOR EXCEPTIONAL CHILDREN AND YOUTH, 1957-58, USOE Bulletin OE-35048-58, Washington, D.C., GPO, 1963.

c. Estimates prepared for Bureau of Education for the Handicapped, U.S. Office of Education, "Estimates of Current

TABLE 4.2 (continued)

ESTIMATES OF THE PREVALENCE OF VARIOUS TYPES OF EXCEPTIONALITY IN THE UNITED STATES

Manpower Needs in Education for the Handicapped, 1968-69," Washington, D.C., December, 1968, (Mimeo).

d. Estimates provided by eleven states to Operations Research in conjunction with "State Survey and Information Flow Analysis" Project for Bureau of Education for the Handicapped, U.S. Office of Education (Letter from Carl M. Koch, Principal Staff, Operations Research, Inc., 1970).

e. Estimates developed from information contained in "Statewide Summary of Annual Reports on Handicapped Minors Not Participating in Special Education Programs", California State Department of Education, 1968. (Mimeo).

f. Estimates developed from information contained in "1969-70 Summary of Special Education Services of Bureau for Special Education," Division for Handicapped Children, Wisconsin Department of Public Instruction, 1970. (Mimeo).

g. Estimates based on data regarding pupils enrolled and pupils eligible but not being served in the school districts which comprised the sample in this study.

h. Estimates used as a basis for population and cost projections in this study.

most accurate available information regarding the prevalence of speech handicaps, at least for the purpose of projecting the number of pupils who could benefit from such programs.

The data obtained from the Wisconsin and California studies and from our sample districts may best be interpreted as indicating the prevalence of physically handicapped children who require special educational programs, rather than the actual number of physically handicapped children in the population. Many physically handicapped children are totally integrated into the regular school program and require no special educational treatment. The data obtained from our sample districts and from the Wisconsin and California studies are considered to indicate quite accurately the prevalence of physically handicapped children who require special educational treatment.

Most authorities agree that the prevalence of gifted children in the general population is about 2 per cent. However, some school programs define giftedness in such a way as to enroll a higher percentage of pupils. The percentage of pupils enrolled in programs for the gifted in the districts included in our sample was somewhat higher than the usual 2 per cent. The Wisconsin and California studies did not provide data concerning the prevalence of gifted pupils.

It will be recalled that, as a result of our difficulty in distinguishing between the educational treatment of two categories, we found it necessary to combine the category neurological disorders with the category special learning disorders in the analysis of the data in Chapter III. The data for these two categories are also confused by the fact that the special school programs are poorly developed and children with these problems have not even been identified in many school districts. We believe the true prevalence of these handicapping conditions is likely to be higher than the prevalence rates reported by our sample of school districts or the prevalence rates computed from data obtained from the California and Wisconsin studies.

Only a small number of the districts included in our sample reported data on programs for emotionally disturbed pupils. In general, programs for emotionally disturbed pupils are not well developed, and many school districts do not offer such programs. Consequently, we believe the earlier prevalence estimates of 2 per cent more nearly approximate the true prevalence of this exceptionality.

Data obtained from the California and Wisconsin studies and data obtained from our sample of school districts are in close agreement regarding the prevalence of multiple handicapped children. However, as we noted in Chapter III, educational programs for multiple handicapped children typically concentrate primary attention on that handicap which most seriously impedes the child's learning at a given point in time. For example, the educational program for the blind child who is mentally retarded generally will first concentrate primarily upon assisting the child to compensate for his blindness; and, when reasonable progress has been made in this area, the child will be placed in a program for mentally retarded pupils. Thus, we did not find the category of multiple handicapped to be widely represented in educational programming at the present time.

In Column H of Table 4.2 will be found the estimates of the prevalence rates of various categories of exceptionality which were used as the basis for forecasting the target population in each category. These estimates are based primarily on the data obtained from the districts included in our sample and on the data obtained from the California and Wisconsin studies. They are tempered by our best judgment concerning the true prevalence of the various exceptionalities based upon our review of previous research and upon our conversations with special education teachers, administrators, and other authorities in special education.

Population Projection

Projections of the population in the United States developed by the United States Bureau of the Census were used to forecast the population of children which may be expected in each category of exceptionality in 1980. Two projection series were used--Series I-B and Series I-D. Series I-B yielded more generous estimates of the population in 1980; Series I-D yielded somewhat more conservative estimates. These estimates are shown in Table 4.3. It should be pointed out that the estimates shown in Table 4.3 represent only an educated guess as to what the situation actually will be, since population projections must be viewed with caution, at best.

TABLE 4.3

ESTIMATES OF THE POPULATION OF THE UNITED STATES UNDER AGE 5 AND AGE 5-17, 1970 AND 1980* (IN THOUSANDS)

Population Category	Series I-B 1970	 1980	Series I-D 1970	 1980
Under Age 5	20,027	27,972	17,625	20,736
Age 5-17	53,026	57,084	53,026	48,694
TOTAL	73,053	85,056	70,651	69,430

*U.S. Bureau of the Census, "Revised Projections of the Population of States: 1970 to 1985," CURRENT POPULATION REPORTS, Series P-25, No. 375, Series I-B, pp. 26-33 and Series I-D, pp. 42-49.

The total number of children in the age range 5 to 17 is expected to be approximately the same in 1980 as it is at the present time. The forecast under Series I-B calls for approximately 57,000,000 children in the age range 5 to 17; the forecast under Series I-D calls for slightly under 49,000,000 children in the age range 5 to 17. With the increasing emphasis on early identification and treatment of exceptional children, the change which is of particular interest is the change in the number of children under age 5. The projected increase in the number of children under 5 years of age can be of great significance in planning educational programs for exceptional children. Under series I-B, the forecast is for nearly 28,000,000 children under age 5 in 1980, an increase of nearly 8,000,000. Under Series I-D, the forecast is for close to 21,000,000 children under age 5.

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Table 4.4 contains estimates of the size of the population of children in each category of exceptionality in the United States in 1980. These estimates were obtained by multiplying the estimated prevalence of each exceptionality by the projected number of children under age 5 and age 5 to 17 in 1980. It should be emphasized, however, that not all children who meet the criteria for inclusion within a given category of exceptionality will necessarily need special educational treatment. In many cases, early identification and treatment can either remedy or aleviate the handicapping conditions and enable the child to function adequately in a regular classroom.

We did not prepare separate forecasts for each state. To the extent that a state or school district is representative of the nation, the prevalence rates shown in Table 4.4 can be applied to forecast the number of children which may be expected to appear in each category of exceptionality. It is known, however, that the social and economic characteristics of a population are related to the prevalence of certain categories of exceptionality. Since we were unable to obtain accurate estimates of the prevalence of each category of exceptionality for each state, there was no basis for forecasting 1980 populations of exceptional children in each of the 50 states on any basis other than the prevalence rates employed to forecast the population of exceptional children in the nation.

Cost Estimates

In Table 4.5 are shown our estimates of the cost of providing educational programs of high quality for all exceptional children ages 5 to 17 in 1980. The cost estimates shown in Table 4.5 are based on the cost per pupil for current operation of regular educational programs. They were obtained by multiplying the cost index for each category of exceptionality by the cost per pupil of regular programs. The cost figure employed for regular programs was the average cost per pupil for current operation of regular programs in 1968-69 for the nation as a whole, $655,[3] which corresponded exactly with the median cost per pupil for regular programs in the 24 districts which comprised our sample. The cost per pupil for each category of exceptionality was then multiplied by the estimated size of the population in each category of exceptionality obtained from Table 4.4. The cost of educating each category of exceptional children and the total cost were forecast in 1968-69 prices, in 1968-69 prices inflated 30 per cent, and in the 1968-69 prices inflated 50 per cent. The latter two estimates provide an indication of the impact of price level increases on program cost without attempting to forecast precisely the amount of inflation which can be expected during the coming decade.

When estimates were based on the Series I-B population projection, an estimated total cost of about $7.1 billion in 1968-69 prices was obtained. Inflation of 30 per cent would increase the total cost to about $9.2 billion – with no increase in either the program quality or the size of the target population. Inflation of 50 per cent would increase the total program cost to about $10.6 billion.

Estimates based on the Series I-D population projection (a more conservative series), resulted in a total estimated cost of slightly over $6 billion in 1968-69

TABLE 4.4

ESTIMATES OF THE POPULATION OF CHILDREN IN THE UNITED STATES REQUIRING SPECIAL EDUCATION PROGRAMS IN 1980 BASED ON U.S. BUREAU OF THE CENSUS PROJECTION SERIES I-B and I-D

Category of Exceptionality	Estimated Prevalence (%)	Under Age 5		Age 5-17		TOTAL	
		Series I-B	Series I-D	Series I-B	Series I-D	Series I-B	Series I-D
Gifted	2.0	559,440	414,720	1,141,680	973,880	1,701,120	1,388,600
Educable Mentally Retarded	1.30	363,636	269,568	742,092	633,022	1,105,728	902,590
Trainable Mentally Retarded	0.24	67,132	49,766	137,001	116,865	204,133	166,631
Auditorily Handicapped	0.10	27,972	20,736	57,084	48,694	85,056	69,430
Visually Handicapped	0.05	13,986	10,368	28,542	24,347	42,528	34,715
Speech Handicapped	3.60	1,006,992	746,496	2,055,024	1,752,984	3,062,016	2,499,480
Physically Handicapped	0.21	58,741	43,545	119,876	102,257	178,617	145,802
Neurological and Special Learning Disorders	1.12	313,286	232,243	639,340	545,372	952,626	777,615
Emotionally Disturbed	2.0	559,440	414,720	1,141,680	973,880	1,701,120	1,388,600
Multiple Handicapped	0.07	19,580	14,515	39,958	34,085	59,538	48,600
TOTAL	10.69	2,990,205	2,216,677	6,102,277	5,205,386	9,092,482	7,422,063

TABLE 4.5

ESTIMATES OF THE COST OF PROVIDING EXCEPTIONAL PROGRAMS OF HIGH QUALITY FOR ALL EXCEPTIONAL CHILDREN AGE 5-17 IN THE UNITED STATES IN 1980, AT 1968-69 PRICE LEVELS, AT 1968-69 PRICE LEVELS WITH 30 PER CENT INFLATION, AND AT 1968-69 PRICE LEVELS WITH 50 PER CENT INFLATION (000)

			Based on Population Series I-B			Based on Population Series I-D		
Category of Exceptionality	Cost Index	Cost/Pupil of Regular Program	1968-69 Prices	30 Per Cent Inflation	50 Per Cent Inflation	1968-69 Prices	30 Per Cent Inflation	50 Per Cent Inflation
Gifted	1.14	$655	$ 852,492	$1,108,240	$ 1,278,739	$ 727,196	$ 945,355	$1,090,794
Educable Mentally Retarded	1.87	655	908,951	1,181,637	1,363,427	775,357	1,007,964	1,163,035
Trainable Mentally Retarded	2.10	655	188,445	244,978	282,667	160,748	208,972	241,122
Auditorily Handicapped	2.99	655	111,796	145,335	167,694	95,365	123,974	143,047
Visually Handicapped	2.97	655	55,524	72,181	83,286	47,363	61,572	71,045
Speech Handicapped	1.18	655	1,588,328	2,064,826	2,382,492	1,354,881	1,761,346	2,032,322
Physically Handicapped	3.64	655	285,808	371,551	428,713	243,801	316,941	365,702
Neurological and Special Learning Disorders	2.16	655	904,538	1,175,900	1,356,807	771,592	1,003,070	1,157,388
Emotionally Disturbed	2.83	655	2,116,275	2,751,158	3,174,413	1,805,233	2,346,802	2,707,849
Multiple Handicapped	2.73	655	71,451	92,886	107,176	60,949	79,234	91,424
TOTAL			$7,083,608	$9,208,692	$10,625,414	$6,042,485	$7,855,230	$9,063,728

prices. Inflation of 30 per cent would increase the cost estimate to well over $7.8 billion; inflation of 50 per cent would increase the estimate to nearly $9.1 billion.

The most costly single program would be that for emotionally disturbed pupils. Not only is the program itself relatively expensive, but there is a relatively high rate of prevalence of this exceptionality. Although programs for speech handicapped pupils are relatively inexpensive, the high rate of prevalence of this exceptionality makes it the second most costly program. Although programs for the auditorily handicapped and the visually handicapped are relatively expensive programs, the low prevalence rates for these two categories result in a rather low total program cost.

No estimates were made of the cost of providing special educational programs for exceptional children under the age of 5 – primarily because we had no data on which to base such estimates. However, early identification and treatment of handicapping conditions is strongly urged, for there is good reason to believe that timely diagnosis and treatment of such conditions as deafness, blindness, crippling, emotional disorders, and special learning problems will compensate for (or even alleviate) the condition, thus enabling the child to participate in the regular educational program with only a minimal amount of special educational help. It is considered likely that the cost of providing early childhood programs for exceptional children eventually would be offset by the reduced expenditures for special programs for school-age children which would be realized as a result of early childhood programs. Initially, however, additional expenditures undoubtedly would be required.

Table 4.6 illustrates the application of the cost indices and prevalence estimates developed in this study to the problem of fiscal planning in a hypothetical school district which has an average daily membership of 20,000 pupils and spends an average of $655 per pupil for the current operation of its regular educational program. By utilizing our prevalence estimates (or prevalence estimates based upon its own data), a school district could apply the cost indices developed in this study to the estimated target population in each category of exceptionality and estimate the cost of providing special programs to accommodate the educational needs of children in each category.

Thus, our hypothetical district could anticipate having 400 emotionally disturbed pupils, and that it would cost about $740,000 to provide a special educational program for this group of pupils. Similarly, about 260 educable mentally retarded pupils could be anticipated at a total program cost of about $318,000. The total cost of the nine special programs serving 1,768 pupils in this hypothetical district would be nearly $2.2 million.

Some Factors Which Are Likely to Affect Fiscal Planning and Educational Programming for Exceptional Children

During the course of this study, a number of factors were identified which, in our judgment, may affect significantly the nature and cost of educational programs for exceptional children during the coming decade. In some cases our notions are supported by data; in other cases they represent intuitive or

TABLE 4.6

ESTIMATED SPECIAL PROGRAM COSTS FOR A HYPOTHETICAL SCHOOL DISTRICT HAVING 20,000 PUPILS IN AVERAGE DAILY MEMBERSHIP AND A REGULAR PROGRAM EXPENDITURE OF $655 PER PUPIL

Category of Exceptional Program	A Prevalence Rate (%)	B District ADM	C Special Program Population (AxB)	D Special Program Cost Index	E Expenditure Pupil in Regular Program	F Special Program Cost (CxDxE)
Educable Mentally Retarded	1.30	20,000	260	1.87	$655	$ 318,461
Trainable Mentally Retarded	0.24	20,000	48	2.10	655	66,024
Auditorily Handicapped	0.10	20,000	20	2.99	655	39,169
Visually Handicapped	0.05	20,000	10	2.97	655	19,453
Speech Handicapped	3.60	20,000	720	1.18	655	556,488
Physically Handicapped	0.21	20,000	42	3.64	655	100,136
Special Learning Disorders	1.12	20,000	224	2.16	655	316,915
Emotionally Disturbed	2.00	20,000	400	2.83	655	741,460
Homebound/ Hospital	0.22	20,000	44	1.42	655	40,924
TOTAL			1768			$2,199,030

subjective judgments based upon our classroom observations and interviews with special program personnel, as well as our exploration of the literature of special education.

Planning-Programming-Budgeting in Special Education

The lack of data with regard to the financial resources and the resource configurations which are being applied in programs for exceptional children and, indeed, in all other programs operated by school districts, is appalling. The data employed in this study were laboriously gathered from a variety of sources within each of the participating districts. Without exception, the districts in our sample, which by virtually any standard would be considered among the most progressive in each of the five states, did not maintain fiscal or personnel records which permitted them to identify easily the inputs to each program much less to relate program inputs to program outputs.

Much has been written in recent years concerning program budgeting and cost-benefit analysis in education. Cost-benefit analysis requires that quantifiable data be available concerning both the inputs to a program and the outputs from the program. With regard to programs for exceptional children, we found that data concerning inputs are exceedingly difficult to obtain and data regarding program output are virtually nonexistant. In this study, for example, we were forced to rely upon a sample selected on the basis of reputation rather than on the basis of empirical evidence of program effectiveness.

Until such time as school districts maintain fiscal, personnel, and pupil records on a program basis, it will be impossible to determine the relative efficacy of alternative arrangements for educating exceptional children, and to conduct meaningful cost-benefit analyses. In the absence of program related data, fiscal and program planning for educating exceptional children will be haphazard, if not chaotic.

An educational program in which there is little concern for the welfare of those who have completed the program is of doubtful merit. Unfortunately, we were disappointed to find very little being done in the way of program evaluation, or even in the follow-up of former pupils. And this was despite the fact that virtually all persons who are involved in educating exceptional children claim that one important objective of their program is to enable children to acquire the skills they need to function effectively as adults. Systematic comprehensive evaluation of educational programs for exceptional children is conspicuous by its absence. Conscientious evaluation of special educational programs for exceptional children, coupled with systematic feed-back of the results to those responsible for planning and programming, is an imperative need if such programs are to be improved.

Identification, Diagnosis, and Educational Treatment of Exceptional Children

Members of the project staff were impressed time and again with the importance of early identification of exceptional children, particularly those who are handicapped by conditions which are amenable to remediation or compensation. The earliest possible identification of such children is strongly urged. Although a massive screening program to identify such children very early in their life time undoubtedly will be expensive, the pay-off is likely to be high if the identification is followed immediately by an educational program designed to remedy or compensate for the child's handicapping condition. In many cases, early diagnosis and treatment will enable a child to move immediately into the regular program when he starts kindergarten or first grade. However, delay in identifying the handicapping condition and failure to provide treatment in a timely fashion may result in the child requiring continuing special educational treatment through his school career, if not throughout his lifetime.

Another important factor which will affect future fiscal requirements for special education is the fact that not all children who are affected by a handicapping condition will necessarily require special educational treatment. As noted above, early diagnosis and proper treatment often will enable the child to participate in a regular school program with only occasional help from a resource teacher. If the goal of a special education program is to return the child to the regular educational program and the normative learning stream, then one measure of the program's effectiveness is the extent to which children who meet the criteria for participation in such a program are, in fact, participating in regular programs with normal children.

A distinction must be drawn between special educational programs where the primary concern is behavior modification and special educational programs where the primary concern is cognitive learning. Obviously, both objectives are present in any educational program. In the case of trainable mentally retarded children, however, behavior modification is likely to assume primary importance when the goal is to enable the child to care for his physical needs. In the case of crippled children of normal or above normal intelligence, on the other hand, cognitive learning is likely to be the primary program concern with behavior modification a secondary concern. In other programs, such as those for the emotionally disturbed, behavior modification may be necessary before any significant cognitive learning can occur. From the standpoint of fiscal planning, behavior modification programs are likely to be more expensive than cognitive learning programs, primarily because they are more labor-intensive. That is, highly skilled, specialized personnel working with very small groups of children may be required.

Organizational Arrangements

The sample of school systems employed in this study included both public school districts and intermediate educational agencies. In addition, data were obtained from a small number of residential programs for educating exceptional children. It is obvious that some local school districts will never have a target population large enough to enable them to mount effective, efficient educational programs for all categories of exceptional children – at least at typical prevalence rates. In sparsely populated areas, even very large school districts will have difficulty providing educational programs for certain categories of handicapped children. In other cases, school districts may have a population large enough to provide quality programs for most types of exceptional children, but not for all categories of exceptionality.

These problems point to the need for alternative organizational arrangements to accommodate the educational needs of exceptional children in situations where local school districts cannot provide adequately for their needs. In some states local school districts have banded together in cooperative arrangements where one district provides a program for one category of exceptional children, a second district provides a program for another category, and so forth. In other states intermediate agencies, such as county units or boards of cooperative educational services, provide educational programs for exceptional children when local school districts are unable to do so in an efficient and effective manner. Even in states where school systems are organized on a county basis, however, a number of counties usually do not have a population base large enough to provide adequately for the educational needs of certain categories of exceptional children.

Organizational arrangements which will make it possible to provide all children reasonable access to educational programs of high quality are a necessity if equality of educational opportunity is ever to be attained. Clearly, in many states some local school districts are too small to provide adequately for the educational needs of exceptional children without incurring an exorbitant cost on a per pupil basis. In such cases the establishment of alternative organizational arrangements for the education of exceptional children is necessary. However, care must be taken lest exceptional children be isolated from association with normal children by virtue of such organizational arrangements. We applaud the current thrust toward fusing exceptional children into regular classes with normal pupils to the greatest possible extent and urge that care be taken lest organizational arrangements be adopted which inadvertently result in segregating exceptional children from normal children. It would appear that both cooperative arrangements involving groups of local school districts and programs for exceptional children coordinated by an intermediate unit offer feasible organizational alternatives. However, in our judgment, educational programs for exceptional children should be located in the same buildings, or at least on the same sites, where educational programs for normal children are housed.

We noted in the literature the argument that residential schools have "outlived their usefulness" and we also encountered this argument in our conversations with special education personnel in some of the districts we visited. Many advantages can be cited for educational programs which permit exceptional children to remain with their families, and we concur with the argument that, whenever possible, organizational arrangements should be developed which permit the child to reside at home while he is participating in a special educational program. However, there are situations in which residential schools are fully justified. In sparsely populated areas, for example, it may be impossible to provide programs for exceptional children unless they are brought together in a residential school. In other instances, the severity of the child's handicap, especially in the case of multiple handicapping conditions, may require specialized care and treatment which can only be provided in a residential center. Thus, we are convinced that there is a place for residential schools, both public and private, in the education of exceptional children. It must be noted, however, that such programs are considerably more expensive than day school programs and, from an economic point of view, can be justified only when alternative arrangements are unsatisfactory.

We noted in our visits to the school districts included in the sample the importance of close coordination between the public school program and other community agencies which deal with exceptional children. In many instances we found significant contributions to educational programs for exceptional children being made by service clubs, church related organizations, and special interest groups. Coordination with other agencies offering services for exceptional children must be regarded as an important task of the administrator of programs for exceptional children. In the case of mentally retarded children, for example, the transition from the school situation to a work situation is best made through a sheltered workshop program.

The long-standing argument between those who favor segregation of exceptional children in special classes and programs and those who favor integrating exceptional children into regular classroom programs as rapidly as feasible continues, although the latter group appears to be dominant at the present time. In virtually all of the school districts in the sample it was stated explicitly that one major objective of their special education program was to remediate or compensate for the handicapping condition which resulted in the child's placement in a special program so that he could return to a regular classroom program with "normal" pupils. In our visits to sample school districts we observed many instances in which a handicapped child was performing quite adequately in a regular classroom situation. Admittedly, some pupils whose handicaps are not amenable to remediation or compensation can never be expected to function adequately in a regular classroom situation. For them, special classroom treatment is unavoidable. For many exceptional children, however, fusion into a regular classroom program is feasible and desirable from both a developmental and economic point of view. As our data demonstrate, special programs almost without exception require more resources than do regular classroom programs.

Program Leadership

It would be difficult to overstate the importance of dedicated, competent, dynamic leadership in the development of educational programs for exceptional children. The members of the project staff commented repeatedly regarding the outstanding leadership being provided in programs which they felt to be particularly outstanding. An outstanding program invariably was associated with a competent, dedicated individual who had worked diligently to establish and maintain that program. This was true at both the state level and at the local school district level. In fact, the most obvious characteristic of most of the school districts included in the sample was the presence in the district of one or more individuals who had devoted themselves to obtaining the best possible educational programs for exceptional children. In many cases these individuals exhibited amazing creativity in securing support for their programs, both from within the school system and from the community at large.

Facilities for Special Educational Programs

We noted great variation in the facilities provided for housing special education programs in the districts which were included in the sample. In some instances we observed new facilities designed specifically for the educational program they housed, and, in the same district, we also observed programs which were housed in sub-standard classrooms or modified storage rooms. Much greater vitality and enthusiasm was noted among special education personnel in situations where their programs were housed in adequate facilities and they were provided with all of the equipment necessary to perform their task effectively.

We are not enthusiastic about the provision of entirely separate facilities for exceptional education programs, except perhaps in situations where no other alternative is feasible. We believe that exceptional children should be housed on the same site, and preferably in the same building, as children engaged in regular educational programs. Thus, we view with some concern the developing trend in some intermediate units and cooperative agencies to construct school buildings for exceptional children which are isolated from the school buildings which house the regular educational program.

The Resource Room Concept

One of the most promising ideas we encountered was that of the "resource room". The development of this concept may result in the provision in every school building of a space where pupils could be tested and their learning problems diagnosed; where specialists could prescribe appropriate educational activities to remedy the problems; and where specialized instructional equipment and materials could be made available. In this arrangement each child is dealt with individually, his specific learning problems are diagnosed, and a prescription of the recommended educational treatment is provided the child's regular teacher. This enables the teacher to work with each child who has learning difficulties, whether moderate or severe, by utilizing special learning equipment and materials and following a plan prescribed by a specialist in learning problems.

Teacher preparation programs typically do not provide adequate training in the identification and remediation of learning problems. Very few elementary teachers are able to identify specific learning difficulties, much less treat them properly. While it may be desirable for a regular classroom teacher to be more knowledgeable in this area, it appears more efficient to rely upon specialists who are trained in the diagnosis of the specific learning problems, and in the methods recommended for dealing with such problems. While knowledge in this area is still sketchy, it is possible that the development of a diagnosis-prescription-treatment orientation in dealing with exceptional children would eliminate much of the need for special classrooms in which exceptional children are dealt with in isolation from normal children.

Teacher Supply and Demand

As noted earlier, special educational programs for exceptional children are very labor-intensive. They are characterized by low pupil-teacher ratios and a heavy input of specialized personnel per pupil. The labor cost associated with such programs inevitably is high.

The shortage of qualified teachers of exceptional children has led many school districts to offer an incentive in the form of additional compensation in an attempt to entice persons to this teaching field. Special training programs also have been developed to provide regular classroom teachers with the requisites for certification in the field of special education. It may be anticipated that, as the supply of teachers begins to exceed the demand for them, the current shortage of special education teachers will be alleviated. If this occurs, and if it is accompanied by a restructuring of compensation schedules in keeping with the new supply-demand situation, the personnel costs associated with special education programs can be expected to diminish.

Classification of Special Education Programs

As indicated in Chapter III, there is need for a taxonomy of special educational programs which is based upon educational treatment rather than upon medical and psychological criteria. In observing school programs for educating exceptional children, we noted little difference in the educational treatment provided pupils in several of the categories of exceptionality identified in our original taxonomy. For example, it was necessary to combine the category of neurological disabilities with the category of special learning disorders, both because of the similarity in educational treatments we observed and because of the overlapping criteria for placement in these categories. The term "educationally handicapped", which is used in California, appears to convey much more adequately the notion that the educational treatment which will meet the unique needs of the child may be much more important than the specific medical, psychological, or psychiatric criteria for placement in the program.

The Impact of Science on the Need for Special Educational Programs

Scientific and technological developments undoubtedly will affect future needs in special education. While the impact of unknown future developments cannot be forecast with precision, the impact of past scientific achievements is obvious. The development of Salk vaccine for the prevention of poliomyelitis has greatly reduced the incidence of crippled children; the discovery that retrolental fibroplasia was caused by a high oxygen content in the incubators of infants has reduced the incidence of blindness, at least from this particular cause; and the development of an effective vaccine for prevention of German measles is likely to affect significantly the incidence of handicapping conditions such as deafness, blindness, and crippling that have occurred in children born to women who sustained German measles during pregnancy.

On the other hand, some new drugs have had serious unforeseen adverse consequences. Thalidomide is a striking example. The effect of many stimulants, depressants, and hallucinogens on the prevalence of various handicapping conditions is yet to be determined. Also to be noted is the fact that modern medical technology enables us to sustain life in many infants who formally would have died because of their crippling or handicapping conditions. It is likely that many of the multiple handicapped children who are beginning to appear in school programs for exceptional children would not have survived infancy in past decades.

The increasing acceptance of birth control, and the development of simpler, more effective methods of birth control also may influence significantly the prevalence of exceptional children in the total population. However, the impact of these developments is very difficult to forecast at the present time.

Among the developments which appear on the horizon is the prospect of "genetic engineering" as a result of recent discoveries concerning the chemistry of inheritance. It may be possible at some future time to identify and replace defective genetic material, thus avoiding the occurrence of inherited crippling or handicapping conditions.

Knowledge which is accumulating concerning the chemical nature of learning also may affect educational programs for exceptional children. The potential development of drugs which will facilitate or inhibit learning and memory may lead eventually to synthesis of the chemical components of learning.

It is clear that any attempt to forecast future needs and the nature of future programs for educating exceptional children is subject to considerable error. New applications of existing knowledge, as well as the acquisition of new knowledge, may affect radically both the need for programs for exceptional children and the nature of the educational treatment provided for such children. However, given the pace of change which has prevailed in schools in recent years, it seems likely that average educational practice in 1980 will resemble the best current practice of today.

FOOTNOTES

1. Ronald W. Bentley, "An Exploration of Relationships Between Expenditures for Educational Programs for Exceptional Children and Expenditures for Regular Educational Programs" (unpublished Ph.D. dissertation, University of Wisconsin, 1970).

2. Personal letter from Carl M. Koch, Principal Staff, Operations Research, Inc., May 14, 1970.

3. Research Division, National Education Association, RANKINGS OF THE STATES, 1970, Research Report 1970-R1 (Washington, D.C.: NEA, 1970), p. 59.

APPENDICES

APPENDIX A

DATA FORMS AND INTERVIEW SCHEDULE

Form A	Pupil Personnel Inventory
Form B-1	Exceptional Program Staff Personnel Inventory
Form B-2	Regular Program Staff Personnel Inventory
Form C	Exceptional Program Materials and Equipment Inventory
Form D	General Information
Form E	Special Transportation Costs
	Interview Schedule

THE UNIVERSITY OF WISCONSIN
Department of Educational Administration
National Educational Finance Project
Satellite Project on Exceptional Children

FORM A

PUPIL PERSONNEL INVENTORY

School District:

Person Completing this form:

Name:
Position:

Address:

Phone:

THE UNIVERSITY OF WISCONSIN
Department of Educational Administration
National Educational Finance Project
Satellite Project on Exceptional Children

PUPIL PERSONNEL INVENTORY
Directions and Definition of Terms

The information requested on these forms is especially significant in that it will be the basis for all future computations. Please be accurate.

1. Fill in the appropriate spaces with all requested information.
2. DO NOT COUNT OR REPORT A STUDENT MORE THAN ONCE.
3. All information is to be reported on the basis of the number of full-time equivalent (FTE) students attending the public schools of the district.

FTE = 1.0 = a student enrolled full time in the regular school program

Terms:

ADM is the average daily membership for the 1968-69 school year, i.e., the average number of students reported as enrolled during that year. *ADM* should be based on the full-time equivalent (FTE) students. Therefore, any student attending less than full time, will be reported as less than 1.0 FTE according to the time he actually spends in the program.

Example: You may have 100 kindergarten children enrolled in your district. If they attend school on a half-day basis, you will record a full-time equivalent (FTE) kindergarten enrollment of 50.

Example: You may have a student who is enrolled one-half time in the basic program and one-half time in a compensatory program. The FTE would be 1.0 divided between the two programs: 0.5 FTE in the basic program, 0.5 FTE in the compensatory program.

Example: You have students enrolled in non-public schools who participate in public school classes on a "shared-time" basis. Prorate the time spent by such students in the public school to obtain the FTE. Thus, if a student is enrolled in a science class and in a math class in the public school for two periods during the day, and the school day has eight periods, the FTE would be 0.25.

4. Report data concerning primary, middle and secondary enrollments, personnel, expenditures, etc., on the basis of the practice followed by the school system for grouping students in these categories. Designate the grouping practice followed by the district in the appropriate columns.

Example: Your school system follows a "6-3-3" organizational plan. Enrollments in grades 1 through 6 would be reported under the column headed "Primary"; enrollments in grades 7 through 9 would be reported under the column headed "Middle"; and enrollments in grades 10-12 would be reported under the column headed "Secondary".

Example: Your school system follows a "5-3-4" organizational plan. In this case enrollments in grades 1 through 5 would be reported as elementary; those in grades 6 through 8 would be reported as middle; and those in grades 9 through 12 would be reported as secondary.

5. Definitions

A. *Total district ADM* is the FTE enrollment in the district for all programs pre-kindergarten through grade 12.

B. *Regular program ADM* is the total district ADM minus the ADM reported in programs C through H on Pupil Personnel Inventory Form 1.

C. *Pre-Kindergarten ADM* includes the FTE enrollment in district operated programs such as nursery schools, etc.

D. *Kindergarten ADM* includes the FTE enrollment in district operated programs for the school year immediately preceding first grade.

E. *Compensatory ADM* includes the FTE enrollment in those programs operated by the school district and designed specifically to overcome handicaps associated with poverty, class or status, national origin, race, cultural background, or adverse environmental conditions (as distinguished from organic causes). Examples would include programs such as Head Start, Follow Through, etc.

F. *Voc/Tech ADM* includes the FTE enrollment in those vocational and technical programs which are designed to provide the skills necessary for job placement. For example, shop and business programs found within the regular educational programs which are designed primarily to provide broad educational experiences, rather than primarily to prepare students for employment, are not included to this category; they are included in the regular program.

G. *Other ADM* includes those FTE enrollments which fit nowhere else on the Pupil Personnel Inventory Form 1 but which are included in the total district enrollment. If this category is used, please identify the programs involved.

H. *Exceptional programs ADM* includes the FTE enrollment of all students in the exceptional programs listed in subcategories H-1 through H-10. Do not include students in your Homebound/Hospital Program.

H-1. *Intellectually gifted ADM* includes the FTE enrollment in those special programs designed specifically to provide educational opportunities for students identified as being academically talented.

H-2. *Intellectually handicapped ADM* includes the FTE enrollment in special programs designed specifically for students identified as being mentally retarded and unable, without special help, to benefit from the regular school program.

H-3. *Auditorily handicapped ADM* includes the FTE enrollment in special programs designed specifically for students identified as being hard-of-hearing or deaf.

H-4. *Visually handicapped ADM* includes the FTE enrollment in special programs designed specifically for students identified as being blind or partially-sighted.

H-5. *Speech handicapped ADM* includes the FTE enrollment in special programs designed specifically for students identified as having speech defects. Language disorders (a problem in the acquisition and use of a language system) should be reported in category H-9.

H-6. *Physically handicapped ADM* includes the FTE enrollment in special programs designed specifically for students identified as having physical disabilities resulting from congenital defects, disease or accident. Students in special programs because they have cardiac conditions, diabetes, allergies, etc., also may be counted here.

H-7. *Neurological and/or mental disorders ADM* includes the FTE enrollment in special programs designed specifically for students identified as having disabilities which arise from brain injuries or inadequate development of the central nervous system. Common to this category are cerebral palsy, epilepsy, encephalitis, etc.

H-8. *Emotionally disturbed ADM* includes the FTE enrollment in special programs designed specifically for students who exhibit severe and frequent maladaptive behavior which seriously reduces their attention and learning.

H-9. *Special learning disorders ADM* includes the FTE enrollment in special programs designed specifically for students who exhibit a severe disorder in one or more of the processes involved in understanding or using spoken or written language.

H-10. *Multiple-handicapped ADM* includes the FTE enrollment in special programs designed specifically for students who suffer from more than one handicap and who have not already been reported in categories H-1 through H-9.

PUPIL PERSONNEL INVENTORY–Form 1
FTE Average Daily Membership 1968-69, Regular School Year

	Primary Grades 1 to ___		Middle Grades ___ to ___		Secondary Grades ___ to ___		Totals		Estimated No. Qualified But Not Enrolled
	R*	NR**	R*	NR**	R*	NR**	R*	NR**	R*
A. Total District									XXXXXXXXXXXX
B. Regular Program									XXXXXXXXXXXX
C. Pre-kindergarten	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX			XXXXXXXXXXXX
D. Kindergarten	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX			XXXXXXXXXXXX
E. Compensatory									XXXXXXXXXXXX
F. Voc/Tech	XXXXXX	XXXXXX							XXXXXXXXXXXX
G. Other									XXXXXXXXXXXX
H. Exceptional Programs (Total 1-10)									
1. Intellectually gifted									
2. Intellectually handicapped									
3. Auditorily handicapped									
4. Visually handicapped									
5. Speech handicapped									
6. Physically handicapped									
7. Neurological and/or mental disorders									
8. Emotionally disturbed									
9. Special learning disorders									
10. Multiple handicapped									

*R = District Resident Student

**NR = Non-Resident Tuition Student

NOTE: Identical format employed for 1969 Summer School

PUPIL PERSONNEL INVENTORY--Form 2
1968-69 Regular School Year

1. Length of 1968-69 School Year
______ days pupils are in attendance
______ days teachers are contracted

2. Average Number of Minutes in Class Per Week/Per Pupil

	Primary	Middle	Secondary	Other
A. Total District	XXXXXX	XXXXXX	XXXXXX	XXXXXX
B. Regular Program				
C. Pre-kindergarten	XXXXXX	XXXXXX	XXXXXX	
D. Kindergarten	XXXXXX	XXXXXX	XXXXXX	
E. Compensatory				
F. Voc/Tech	XXXXXX			
G. Other				
H. Exceptional Programs	XXXXXX	XXXXXX	XXXXXX	XXXXXX
1. Intellectually gifted				
2. Intellectually handicapped				
3. Auditorily handicapped				
4. Visually handicapped				
5. Speech handicapped				
6. Physically handicapped				
7. Neurological and/or mental disorders				
8. Emotionally disturbed				
9. Special learning disorders				
10. Multiple handicapped				

3. Transportation

A. Number of students enrolled in all programs in the school district receiving transportation at public expense. (Include non-public school students if transported at public expense) ______

B. Number of students enrolled in all exceptional programs (H-1 through H-10 above) receiving special transportation at public expense included in 3A above.
______

4. Homebound/Hospital Instruction

A. Number of students receiving homebound/hospital instructional service during 1968-69 school year. ______

B. Total expenditure for homebound/hospital service during 1968-69 school year
______

NOTE: Identical format employed for 1969 Summer School

THE UNIVERSITY OF WISCONSIN
Department of Educational Administration
National Educational Finance Project
Satellite Project on Exceptional Children

FORM B-1

EXCEPTIONAL PROGRAM STAFF PERSONNEL INVENTORY

School District:

Person completing this form:

Name:

Position:

Address:

Phone:

THE UNIVERSITY OF WISCONSIN
Department of Educational Administration
National Educational Finance Project
Satellite Project on Exceptional Children

EXCEPTIONAL PROGRAM STAFF PERSONNEL INVENTORY

Directions and Definition of Terms

The information requested on this form is especially significant in that it will provide the basis for all future computations. Please be accurate.

1. Fill in the appropriate spaces with all requested information.
2. A separate inventory is to be provided for each exceptional program.
3. For information requested on the basis of the number of full-time equivalent (FTE) staff members, use:
   FTE = 1.0 = staff member assigned to the regular school program full time

Column

1. FTE PRIMARY – includes FTE of all personnel assigned to primary education programs for the given exceptionality.
2. FTE MIDDLE – includes FTE of all personnel assigned to middle educational programs for the given exceptionality.
3. FTE SECONDARY – includes FTE of all personnel assigned to secondary education program for the given exceptionality.

4. TOTAL FTE OF THIS PROGRAM – sum columns 1, 2, and 3 for each personnel category, or enter total FTE where summation is not required.
5. TOTAL PRORATED SALARIES FOR THIS PROGRAM – enter actual salaries paid to all personnel in each category requested. Personnel with less than a full time assignment in each category shall have that salary prorated in an amount equivalent to that assignment.

   Example: If a psychologist is assigned 0.75 FTE to a particular exceptional program and 0.25 FTE to the regular program and the actual salary is $10,000, then the amount to enter in Column 5 for that psychologist would be $7,500 (.75 x $10,000).
6. TOTAL SALARY SUPPLEMENTS INCLUDED IN COLUMN 5 – any salary amounts included in Column 5 that are paid to personnel in *excess* to the salary which would be paid to a regular classroom teacher with comparable years of experience and training should be totaled and entered here.

   Example: A classroom teacher of the mentally retarded with 5 years of training and 4 years experience receives a salary of $8,500 while a regular classroom teacher with like experience and training receives $8,000. The amount to enter in this column for that employee would be $500.
7. AVERAGE YEARS EXPERIENCE IN TEACHING – divide the total number of years teaching experience by the number of individual teachers for the given exceptionality. Include *all* teaching experience.
8. AVERAGE YEARS OF EXPERIENCE IN THIS PROGRAM – divide the total number of years teaching experience in the given exceptionality by the number of individual teachers for the given exceptionality. Include *only* experience in the given exceptionality.
9. YEARS OF TRAINING – enter in the appropriate column the number of teachers serving in the given exceptional program.
10. NUMBER WITH SPECIAL TRAINING FOR THE GIVEN PROGRAM POSITION – enter the total number of personnel who have completed a program of study designed to prepare them to work with children having the given exceptionality.

Positions:

Program Administrators – a supervisor, coordinator, manager, etc. who has some direct responsibility for the given program.

Teacher Aides – non-certificated personnel who assist the teacher with the program activities. Do not include volunteer services by community; include only district paid personnel.

Specialists – professional personnel (e.g., art teacher, music teacher, etc.) who provide services for the given program. List service area.

Other – secretaries, clerks, etc., who directly support the given exceptional program.

EXCEPTIONAL PROGRAM PERSONNEL INVENTORY--1968-69 Regular School Year
PROGRAMS FOR (Category of Exceptionality)

Special programs designed specifically to provide educational opportunities for students identified for this exceptional program.	1	2	3	4	5	6	7	8	9				10
									Training				
	FTE Primary Grades 1 to__	FTE Middle Grades__to__	FTE Secondary Grades__to__	Total FTE of This Program	Total Prorated Salaries for This Program	Total Salary Supplements Included in Column 5*	Average Years of Experience in Teaching	Average Years of Experience in This Program	Less Than BA	BA	MA	Beyond MA	No. With Special Training for Program Position
Program Administrators	XXXXXX	XXXXXX	XXXXXX				XXXXXX		XXX	XXX	XXX	XXX	XXXXXX
Teachers													
Teacher Aides							XXXXXX		XXX	XXX	XXX	XXX	XXXXXX
Nurses	XXXXXX	XXXXXX	XXXXXX				XXXXXX		XXX	XXX	XXX	XXX	XXXXXX
Psychologists	XXXXXX	XXXXXX	XXXXXX				XXXXXX		XXX	XXX	XXX	XXX	XXXXXX
Psychiatrists	XXXXXX	XXXXXX	XXXXXX				XXXXXX		XXX	XXX	XXX	XXX	XXXXXX
Social Workers	XXXXXX	XXXXXX	XXXXXX				XXXXXX		XXX	XXX	XXX	XXX	
Psychometrists	XXXXXX	XXXXXX	XXXXXX				XXXXXX						
Guidance Counselors	XXXXXX	XXXXXX	XXXXXX				XXXXXX						
Physical Therapists	XXXXXX	XXXXXX	XXXXXX				XXXXXX						
Speech Therapists	XXXXXX	XXXXXX	XXXXXX				XXXXXX						
Occupational Therapists	XXXXXX	XXXXXX	XXXXXX				XXXXXX						
Specialists													
Other (Specify)	XXXXXX	XXXXXX	XXXXXX										
	XXXXXX	XXXXXX	XXXXXX										
	XXXXXX	XXXXXX	XXXXXX										
	XXXXXX	XXXXXX	XXXXXX										

*If the Salary Schedule provides a specific additional increment for personnel who work in this program indicate details on reverse side or attach copy of salary schedule. If all persons in any row do not receive equal supplements, please specify conditions and amounts. State transportation allowances separate if any.

NOTE: Identical format was employed for each category of exceptionality and for the 1969 Summer Session.

THE UNIVERSITY OF WISCONSIN
Department of Educational Administration
National Educational Finance Project
Satellite Project on Exceptional Children

FORM B-2

REGULAR PROGRAM STAFF PERSONNEL INVENTORY

School District:

Person completing this form:

Name:

Position:

Address:

Phone:

THE UNIVERSITY OF WISCONSIN

Department of Educational Administration
National Educational Finance Project
Satellite Project on Exceptional Children

REGULAR PROGRAM STAFF PERSONNEL INVENTORY

Directions and Definition of Terms

The information requested on this form is especially significant in that it will provide the basis for all future computations. Please be accurate.

1. Fill in the appropriate spaces with all requested information.

2. For information requested on the basis of the number of full-time equivalent staff use:

FTE=1.0=staff member assigned full-time to the regular program

REGULAR PROGRAM FTE STAFF – includes all school district employees who are *not employed* in programs designated as: pre-kindergarten, kindergarten, compensatory, vocational-technical, or exceptional. (Descriptions of the above programs are provided on pages 2-4 of the Pupil Personnel Inventory.) For definitions of columns 1-9 see pages 1 and 2 of the Exceptional Program Staff Personnel Inventory.

NON-TEACHING ACADEMIC STAFF – includes FTE certificated personnel in administrative and supervisory activities, or in other activities in support of the district's instructional programs. Express FTE to nearest 0.1 of the employee's full work load.

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REGULAR PROGRAM STAFF PERSONNEL INVENTORY
1968-69 Regular School Year

	1	2	3	4	5	6	7	8	9				10
									Training				
	FTE Primary Grades ___to ___	FTE Middle Grades ___to ___	FTE Secondary Grades ___to ___	Total FTE Of This Program	Total Prorated Salaries for This Program		Average Years of Experience in Teaching		Less Than BA	BA	MA	Beyond MA	
1. Classroom Teachers (FTE) in All Public Day School Programs in the District						XXXXXXXX		XXXXXXXX					XXXXXXXX
2. Classroom Teachers (FTE) in													
A. Pre-Kindergarten Programs	XXXXX	XXX	XXXXX			XXXXXXXX	XXXXXXX	XXXXXXXX	XXXX	XXXX	XXXX	XXXX	XXXXXXXX
B. Kindergarten Programs	XXXXX	XXX	XXXXX			XXXXXXXX	XXXXXXX	XXXXXXXX	XXXX	XXXX	XXXX	XXXX	XXXXXXXX
C. Compensatory Programs						XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXX	XXXX	XXXX	XXXXX	XXXXXXXX
D. Voc/Tech Programs	XXXXXX					XXXXXXXX	XXXXXXX	XXXXXXXX	XXXX	XXXX	XXXX	XXXX	XXXXXXXX
E. Exceptional Programs						XXXXXXXX	XXXXXXX	XXXXXXXX	XXXX	XXXX	XXXX	XXXX	XXXXXXXX
3. Total Classroom Teachers (FTE) Serving Students in Programs (A) through (E)						XXXXXXXX	XXXXXXX	XXXXXXXX	XXXX	XXXX	XXXX	XXXX	XXXXXXXX
4. Net Total Classroom Teachers (FTE) in Regular Programs (Item 1 minus Item 3)						XXXXXXXX	XXXXXXX	XXXXXXXX	XXXX	XXXX	XXXX	XXXX	XXXXXXXX

REGULAR PROGRAM STAFF PERSONNEL INVENTORY
(continued)
1968-69 Regular School Year

	1 FTE Primary Grades ___to ___	2 FTE Middle Grades ___to ___	3 FTE Secondary Grades ___to ___	4 Total FTE of This Program	5 Total Prorated Salaries for This Program
5. Teacher Aides (FTE) in Regular Programs					
6. Non-Teaching Academic (Certificated)Staff in Regular Programs	XXXXX	XXXXX	XXXXX	XXXXX	XXXXXXX
A. Administrative and Supervisory Staff: Supt., Asst. Supts., Principals, Supervisors					
B. Counselors					
C. Psychologists and Psychiatrists					
D. Social Workers					
E. Research and Curriculum Workers					
F. Other Specialists					
G. Total (FTE) Non-Teaching Academic (Certificated) Staff in Item 6A to 6F					
7. FTE Employees for Health Services: Doctors, Nurses, and Others	XXXXX	XXXXX	XXXXX		
8. FTE Clerks, Secretaries, etc.	XXXXX	XXXXX	XXXXX		
9. FTE Employees for Operation and Maintenance of School Plants	XXXXX	XXXXX	XXXXX		
10. FTE Employees for Food Service	XXXXX	XXXXX	XXXXX		
11. FTE Employees for Transportation of Pupils	XXXXX	XXXXX	XXXXX		
12. FTE Other Employees (Security Officers, Statisticians, etc.)	XXXXX	XXXXX	XXXXX		
13. Total FTE Non-Academic Staff	XXXXX	XXXXX	XXXXX		

REGULAR PROGRAM STAFF PERSONNEL INVENTORY (continued)
1968-69 Regular School Year

14. Average fringe benefit cost per certificated staff member. (Insurance, retirement, social security, etc. Exclude contributions of employees.) $__________

15. Total salary payments to persons on leave of absence and to substitutes for daily absences of staff. $__________

16. Average fringe benefit cost per non-academic staff member. (Insurance, retirement, social security, etc. Exclude contributions of employees.) $__________

17. Total expenditure for instructional supplies and equipment (Exclude major capital equipment.) $__________

18. Total expenditure for maintenance exclusive of salaries. (Plant, equipment, etc.) $__________

19. Total expenditure for operation of plants exclusive of salaries. (Supplies, utilities, etc.) $__________

20. Total transportation operating cost exclusive of salaries. (Materials, supplies, depreciation of transportation equipment, etc.) $__________

21. Total cost for food service operations exclusive of salaries. $__________

22. Total debt service expense. $__________

23. Total expenditures for capital outlay exclusive of new buildings and major remodeling. $__________

24. Total other costs of current operation. (Include any costs not reported above and indicate purpose.) $__________

25. Total current operating budget for all programs. $__________

NOTE: Identical format was employed for 1969 Summer Session

THE UNIVERSITY OF WISCONSIN
Department of Educational Administration
National Educational Finance Project
Satellite Project on Exceptional Children

FORM C

EXCEPTIONAL PROGRAM MATERIALS AND EQUIPMENT INVENTORY

School District:

Person completing this form:

Name:

Position:

Address:

Phone:

THE UNIVERSITY OF WISCONSIN
Department of Educational Administration
National Educational Finance Project
Satellite Project on Exceptional Children

EXCEPTIONAL PROGRAM MATERIALS AND EQUIPMENT INVENTORY

1968-69 Regular School Year
Directions and Definition of Terms

In the spaces below list materials and equipment that are *unique* to, i.e., purchased especially for, this exceptional program. List only those items which are in excess of those used in the regular program. For example, if a set of maps is standard equipment for every classroom, it would not be reported; while a phonic mirror used for speech therapy, but not found in every classroom, would be reported. For items supplied in greater quantity in this program than in regular programs, report only the excess amount, e.g., projectors, tape recorders, etc.

If items are used in several classrooms, in several schools, or system-wide, indicate by placing a check in the column headed "system-wide" and give the total number of items in the school system. For items used only in a single classroom, indicate by placing a check in the appropriate column(s) (Primary, Middle, Secondary) and report *only* the number of items found in a typical classroom.

Special expendable materials: report here any items of an expendable nature, i.e., items that are consumed in use, purchased primarily for use in this program. Examples are special workbooks, braille books, Frostig Kits, instructional games, etc.

Special equipment: report here any items of a non-expendable nature, i.e., items that are not consumed in use and have a relatively long life expectancy. Examples are audio-visual equipment, craft equipment, typewriters, etc.

Special construction: report the estimated replacement cost, i.e., current cost, of constructing special features not required in regular school programs.

Space allocation: report the total number of square feet allocated to each exceptional program.

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PROGRAM FOR (Category of Exceptionality)

	Number of Items	Current Replacement Cost Per Item	Average Life (Yrs.)	Check Program Level Where Used			
Special programs designed specifically to provide educational opportunities for students identified for this exceptional program.				Grades Primary	Grades Middle	Grades Secondary	System-wide
A. Special expendable materials							
1.							
2.							
3.							
4.							
5.							
6.							
B. Special equipment							
1.							
2.							
3.							
4.							
5.							
6.							

(Use reverse side of form if additional space is needed)

C. Estimated cost of special construction features for this program (e.g., wheelchair ramps, etc.)

	Special Construction	Estimated Cost
1.		$________
2.		________
3.		________
4.		________

D. Number square - feet of building space allocated for this program

________sq. ft.

NOTE: Identical format was employed for each category of exceptionality

THE UNIVERSITY OF WISCONSIN
Department of Educational Administration
National Educational Finance Project
Satellite Project on Exceptional Children

FORM D

GENERAL INFORMATION

School District:

Superintendent:

Person(s) responsible for administration of program for exceptional children:

Name:

Title:

Address:

Phone:

(If more than one person, identify each and give the program for which they are responsible, use reverse side of page if additional space is needed.)

Person completing this form:

Name:

Position:

Address:

Phone:

THE UNIVERSITY OF WISCONSIN
Department of Educational Administration
National Educational Finance Project
Satellite Project on Exceptional Children

GENERAL INFORMATION

1. Check the category which best describes this school district:

Large city – total population of 250,000 or more. Center of a metropolitan area with contiguous satellite suburbs.

Medium-sized city – total population of 50,000 – 250,000. Not adjacent to a large city.

Small city – total population of 10,000 – 50,000. Not adjacent to a large or medium-sized city.

Established suburb – adjacent to a large or medium-sized city. A major portion of the land area developed. Relatively stable pattern of population growth.

Developing suburb – adjacent to a large or medium-sized city. A major portion of the land area not yet developed. Fluctuating pattern of population growth, but growth generally rapid.

Agricultural service center – total population less than 10,000. Substantial portion of school enrollment drawn from area outside the population center. Economy oriented to services or agriculturally related industry.

Other – (Indicate characteristics)

2. What was the estimated total population of the school district as of January 1, 1969?

3. What is the area of the school district (in square miles)?

4. What is the total equalized (true market value) valuation of taxable property in the school district?

For what year is this value?

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5. Does the district conduct an annual census which enumerates all children within a specified age range, e.g., birth-20, birth-18, etc.?

Yes No

5a. If yes, attach a copy of the most recent school census.

5b. If no, please supply a resume of the population data upon which the district's enrollment projection are based.

6. Does the district regularly produce enrollment projections?

Yes No

6a. If yes, attach a copy of the most recent enrollment projections.

7. How many nonpublic schools operate within the district?

Elementary

Secondary

7a. How many pupils were enrolled in nonpublic elementary schools during the 1968-69 school year?

7b. How many pupils were enrolled in nonpublic secondary schools during the 1968-69 school year?

8. Are estimates of the income level of residents of the district available?

Yes No

For what year?

8a. If yes, what is the average family income?
, what is the average per capita income?
What is the source of these estimates?

9. Are estimates of the educational level of adults in school districts available?

Yes No

For what year?

9a. If yes, what is the average educational attainment of adults in the district, i.e., average number of years of school completed?

What is the source of these data?

10. Is information available concerning the composition of the labor force?

Yes No

10a. If yes, attach any information which may be available about the types of occupations in which residents engage.

11. What revenue receipts did the school district receive from each of the following sources during the 1968-69 school year?

Federal Aids (all programs)

State Aids
- General State Aid
- Categorical State Aid (for specific programs or services)

Local Property Taxes

Local Non-property Taxes

Student Fees and Rentals

Tuition

Gifts or Grants

Other Revenues

Total

THE UNIVERSITY OF WISCONSIN
Department of Educational Administration
National Educational Finance Project
Satellite Project on Exceptional Children

FORM E

SPECIAL TRANSPORTATION COSTS
1968-69 Regular Session

District:

State:

Program	Transportation	
	No. Students	Total Cost
1. Intellectually Gifted		
2. Intellectually Handicapped		
3. Auditorily Handicapped		
4. Visually Handicapped		
5. Speech Handicapped		
6. Physically Handicapped		
7. Neurological/Mental Disorders		
8. Emotionally Disturbed		
9. Special Learning Disorders		
10. Multiple Handicapped		

NOTE: Identical format employed for 1969 Summer Session

NEFP/Wis/E

12/3/69

THE UNIVERSITY OF WISCONSIN
Department of Educational Administration
National Educational Finance Project
Satellite Project on Exceptional Children

INTERVIEW SCHEDULE

1. Exceptional Program (list)

2. Name of Program Director

    2a. Phone

    2b. Number of Years in This Position

3. How many years has this school district provided a program for this exceptionality?

4. How many classrooms of children are served by this exceptional program?

5. Are specific services provided for this program by agencies other than the school district (e.g., PTA, service clubs, medical associations, other governmental units, etc.)?

Yes No
(5a)

5a. Please identify and describe.

6. Do the students in this program receive all their instruction in a self-contained classroom?

Yes No
(6a)

6a. Please describe the grouping arrangements.

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7. In your opinion, what is the most satisfactory pupil-teacher ratio for your program?

pupils per teacher

8. Please tell me the *number* and titles (e.g., teacher aides, physical therapist, etc.) of support personnel you would like to assist you in your program if they were available.

9. Is a school district census taken that provides for identification of children needing the services offered by this program prior to kindergarten?

Yes	No
(9a)	(9b)

9b. What is the earliest grade-level that children are identified for this program?

10. Please describe the criteria used to select children for this exceptional program? (I.Q., Doctors, Psychologist, other professional recommendations)

11. Are the objectives of this program available to me in published form?

Yes	No
(Secure copy)	(11a)

11a. Please describe the objectives as you see them.

12. Are the activities and methods employed in this program described in published form?

Yes	No
(Secure copy	(12a)

12a. Please describe them briefly.

13. In your opinion, what are the strengths of this program?

14. What plans have you made for satisfying the future needs and further development of this program? (e.g., services, construction, equipment, etc.)

15. Are you familiar with any privately-operated programs for exceptional children in your school district?

Yes (15a)   No

15a. Please identify and describe.

16. Is there a specified time in the exceptional child's development that he is no longer offered services through this program?

Yes (16a)   No

16a. Please describe.

17. Are vocational-technical courses offered the exceptional students enrolled in this program?

Yes (17a)   No

17a. Please identify the courses.

18. Is the transportation program different for students enrolled in this program than for students enrolled in the regular program?

Yes (18a)   No

18a. Please describe.

19. Is the food service program different for students enrolled in this program than for students enrolled in the regular program?

Yes No

(19a)

19a. Please describe.

20. Was the physical plant constructed (remodeled) especially to house this program?

Yes No

(20a)

20a. Was the classroom designed (remodeled) especially for this program

Yes No

(20b)

20b. Please describe uniqueness.

21. When identifying space for new construction, remodeling, or the initial placement of a program in older facilities, how many square feet per student is desirable?

sq. ft. per student

22. Are there any special maintenance costs directly related to the exceptionality of the students served in this program (painting, breakage, etc.)?

Yes No

(22a)

22a. Please identify.

23. How is the program evaluated?

24. How could the evaluation process be improved?

25. What other pertinent information, if any, is needed for our understanding of this program.

CLASSROOM OBSERVATIONS

1. What special materials and/or equipment are observed in the classroom? Describe

2. How many children were observed in the classroom?

3. Is more than one exceptional program housed in the same building?
Yes No

4. Is more than one exceptional program housed in the same room?
Yes No

5. List number and titles of persons observed providing program services.

1. Teachers
2. Aides
3.
4.

6. Identify age levels provided for in this classroom.

APPENDIX B

PROGRAM DESCRIPTIONS

In this appendix we provide brief descriptions of the programs we observed in each of the 24 school districts. The descriptions are not intended to be exhaustive, but we hope they convey to the interested reader the "flavor" of each program. The districts are identified by a code letter, which corresponds to the code letter employed in Chapter III and in Appendix C. This will permit interested readers to obtain information which will help to explain the variance in program costs which we have identified.

District A

Speech and Hearing

Speech and hearing programs have been provided by this district since 1954, but only during the past two or three years has the program shown real development. One interesting feature of the program is that all speech therapists conduct language development-speech improvement classes for first and second graders on a weekly basis. These classes serve to identify children who are in need of speech therapy, acquaint classroom teachers with effective language development practices and skill building activities, and help to alleviate minor language development problems in first and second grade children, which without the program, might become more serious as the child grows older. Unfortunately, the system has only half as many speech therapists as are needed so that schools must be served on an alternate semester basis. That is, speech therapy and language development is provided in each school during only one semester of the academic year. During the first semester 1969-70 the six speech therapists were serving twelve schools. Thirty-three language development-speech improvement classes were scheduled weekly during the first semester and 165 children were on the immediate waiting list for speech therapy. The speech program benefits by having access to a university-based Speech and Hearing Clinic for severe cases.

Virtually all instruction in the speech and hearing area is provided on a resource teacher basis. The system does have one class of kindergarten pupils with severely impaired hearing who receive their instruction in a self-contained classroom. (These five pupils were all victims of the 1964-65 rubella epidemic.) Personnel in the program believe that a speech therapist can work effectively with some 50-75 pupils per week, depending upon the severity of the problem and the nature of the pupil. The earliest grade level the children are identified for participation in the program is kindergarten, although identification at grade one or two is more common.

The major objective of the program is to eliminate the problem insofar as possible and enable the child to participate in the activities of the regular classroom situation. The strengths of the program are believed to be the excellent relationships which exist between classroom teachers and principals, the developmental rather than remedial emphasis in the program, the high dismissal rate – that is, the high number of pupils no longer needing speech therapy, and the professional qualifications of the staff in speech and hearing.

Regularly scheduled services extend through grade six, but consultation with teachers and counselors of secondary school pupils with speech or hearing problems is provided and program personnel are available to work with severe cases on a resource basis. Children in the program ride regular school buses with the exception of the five kindergarten children enrolled in the class for severely hearing impaired who are transported by their parents.

The major problem identified was the lack of adequate space. One mobile van unit is used in schools where absolutely no space is available, but program personnel are not satisfied with this arrangement. In no school does the physical plant provide special facilities for speech and hearing therapy; regular classrooms are used, as are administrative offices or any other space that may be available.

Special Learning Disorders

The program for special learning disorders is in its first year, although a pilot project was conducted last year. The program has been instituted in three elementary schools with one special teacher in each school, with the program coordinator providing itinerant service in other schools. In each of the three schools the special teacher works with approximately 20 pupils, primarily in a one to one situation but occasionally involving groups with as many as four pupils. The special teacher also works with other classroom teachers, particularly with regard to perceptual and motor learning problems.

Pupils selected for participation in the program must exhibit average or above average I.Q. as shown by a psychological evaluation but be behind normal achievement levels in one or more areas. Children are identified for participation in kindergarten or first grade. The emphasis in the program is on early identification and remediation of the specific learning disability. Potential participants for the program are referred by classroom teachers or principals. Program personnel were of the belief that it is difficult for a teacher to work effectively with more than 20 pupils per week, although pupils may enter and leave the program during the course of the year.

Children are not provided special transportation but ride regular school buses. The program is housed in regular classrooms with some additional equipment such as balance beams as well as materials for perceptual training. A classroom of average size has proven satisfactory. The major need is for floor space adequate to provide for motor training equipment as well as for establishing areas for various types of skill development.

Mentally Retarded (Educable and Trainable)

The district has maintained a program for mentally retarded children since the mid-1940's. During the 1969-70 school year the district has three classrooms for trainable mentally retarded children (two elementary and one junior high) and 34 classrooms for educable mentally retarded children (18 elementary, 10 junior high, 4 junior-senior high, and 2 senior high). Children in these programs are fused with children in regular programs insofar as possible. However, a majority of their time is spent in self-contained classrooms, although they generally participate in such regular classes as physical education and music.

An idealized pupil-teacher ratio was considered to be 10 to 12 pupils for trainable mentally retarded, depending upon the age level, and 15 to 18 pupils in educable mentally retarded classes. Personnel in the program also expressed the need for teacher aides in each classroom and social workers to work with families of mentally retarded children.

The school district does not conduct a census and children are identified for this program at grade one, two, or three. Children are referred for possible placement in the program by teachers, with the referral co-signed by the school principal. A psychological evaluation using either a Stanford-Binet or a Wechsler is conducted; and if the child meets the state-established criteria and parental permission is obtained, he is placed in the appropriate program.

The major objectives of the program are to enable the child to develop to his maximum potential and to enable him to function in society with some degree of effectiveness. The extent to which this objective can be achieved depends largely upon the degree of mental retardation of the child. A community sheltered workshop program is currently under consideration, and it is hoped that such a program will be developed in the near future by other community agencies.

A new facility designed especially for educating trainable mentally retarded children is under construction. This facility will serve all trainable mentally retarded children in a large portion of the district and will require provision of special transportation for these children (they now ride regular school buses).

The program extends through senior high school for educable mentally retarded children and through age 16 for trainable mentally retarded children. The entire program is vocationally oriented, especially at the junior and senior high school levels. There is also close cooperation with vocational rehabilitation services to provide job placement for students upon completion of the program. Some students in the program for educable mentally retarded children also enroll in regular vocational classes. Vocational orientation of the EMR program is toward horticulture, family care, use of basic shop tools, use of food preparation and laundry equipment, and beauty care equipment.

The program is conducted in classrooms that were not designed especially for them. Some classrooms have been remodeled, particularly at the senior high school, to provide for the EMR program. At the junior and senior high school level, vocationally oriented equipment is required – such as a sink, counter, storage space, tool chest, workbenches, kitchen and laundry equipment, and beauty equipment. Also, for the usual educational activities, a wide variety of reading material and other resource material is required. Every classroom has a Peabody language development kit (language master) instructional games, tape recorder, listening stations, record player, overhead projector, and a strip film projector.

District B

Visually Handicapped

The district has provided a program for visually impaired children for over ten years. During 1969-70 there are three self-contained classrooms for visually impaired children and several itinerant teachers who served 18 secondary pupils and 26 elementary pupils on a resource room basis. Several community agencies also provide services. For example, the state Council for the Blind provides diagnostic services; the Lion's Club has helped provide equipment; the Jewish Women's Council has provided some equipment as well as transcribing services. The programs for visually handicapped children have a resource room orientation with the exception of programs for children who are both visually handicapped and mentally retarded, where a self-contained classroom program prevails. The program for visually handicapped children of normal mentality emphasizes mobility training and returning the child to the regular classroom as rapidly as possible. To this end, transitional rooms are provided to assist the child and provide reinforcement and encouragement upon his return to the regular classroom program. The pupil teacher ratio varied from a minimum of 6 to a maximum of 10.

Children are identified by referral from parents, schools, and medical personnel. Children may be identified for participation in the program at the first grade level, although in practice it usually occurs at the second grade level. Before a child is admitted to the special program, a medical form must be completed by an ophthamologist and the child must undergo a psychological evaluation.

Itinerant service is provided to visually handicapped children in high schools. No special vocational-technical courses are offered in the program, although insofar as they are able, pupils take regular vocational courses offered in high school. Many of the pupils in the program ride regular school buses; some ride buses which transport special education pupils only. In planning new construction, approximately 850 square feet per classroom is desired with a class size of 6 to 10 pupils.

The provision of state money for equipment has had great impact on the program in recent years, and the district also has allocated more funds for equipment and materials. In planning ahead, better transportation service for the visually impaired child is imperative. The use of small vans to transport such children is anticipated. Also in the thinking stage is the possibility of a general resource room or center at each school to help students having many types of handicaps, including the visually handicapped. It should be noted that the objective of the program for the multiply handicapped child who is mentally retarded is to enable him to participate in a program for mentally retarded youngsters, that is, insofar as possible to alleviate his visual handicap and permit him to take part in a program for the educable mentally retarded child.

Physically Handicapped

The district operated two centers which were constructed especially for educating severly crippled children. Each center is four years old — although the district has provided a program for crippled children since about 1943. The program for crippled children extends through grade six, and for the mentally handicapped and crippled child extends through age 16. Several community agencies — Unified Cerebral Palsy, state Crippled Children's Commission, Muscular Distrophy Association, Easter Seal Association, and Vocational Rehabilitation — provide specific services to the program, primarily of a diagnostic nature, although some provide equipment or scholarships. A need for a community sheltered workshop program for crippled children was expressed.

A pupil-teacher ratio of 10 pupils per teacher was preferred, although state maximums are 12 or 13.

Children begin the program at age six or grade one. They are identified initially by referrals from physicians or other agencies, and from teachers and principals. Upon referral the child is given a psychological evaluation; the family is interviewed by a social worker; and final decision on placement is made by the program director and staff members.

Facilities required are similar to those generally required for regular children with the addition of such features as wider doors that will accommodate wheelchairs; storage space in hallways for wheelchairs, crutches and the like; handrails at bulletin boards and in other classroom areas; and handrails throughout corridors and other building areas where children pass. Each of the two centers contains a pool area for hydrotherapy and appropriate space and equipment for physical therapy. As yet, the district has not been able to provide physical therapists on a regular basis because the district's salary schedule does not enable it to compete successfully with hospitals and other agencies which employ physical therapists.

Special transportation is provided for crippled children and constitutes an important cost element in this program. The program operates essentially in the elementary schools, the major objective being to permit the child to adjust to his handicap to the point where he can fit into a regular classroom situation.

Homebound and Hospital

The district has a rather unusual hospital program in that one class is maintained at a children's hospital. The program is basically tutorial and averages 10 or 11 children per day with two teachers, one for grades one through six and the other for grades seven through twelve. This program has been in operation for many years. The child is picked up as soon as he enters the hospital, and liason is maintained with the regular classroom teacher. The objective of the program is to enable the child to keep up with his regular school activities. The intensity of instruction is based on recommendations of attending physicians. Usually the child is in the program for at least one month, although no time limitations exist.

A homebound program involving eight teachers, two of whom work with emotionally disturbed, teenage youngsters, is maintained in the county. The maximum number of pupils served per week is nine per teacher. The load in the program varies considerably, with the highest number of pupils usually occuring in the period following Christmas. Again, the program is basically tutorial. The program for emotionally disturbed teenagers has grown out of the need for a systematic way of dealing with youngsters who are too disturbed to be tolerated in the usual classroom situation. Homebound instruction is provided upon referral from physicians and in keeping with the attending physician's recommendations. To be eligible for the program, a child must be on continuing care from a community agency, a physician, or the like. The success of the program for severely emotionally disturbed teenagers has led to planning for a more systematic approach to these youngsters. Also, a program is being started for unwed mothers who, by school board regulation, are forbidden to attend school.

Emotionally Disturbed

The program for emotionally disturbed youngsters is in its fourth year of operation and is funded under a Title I program. It operates in 33 elementary schools with one or two classes in each school, and children are in the program for approximately one hour per day. The program is restricted at this time to Title I schools and is for emotionally disturbed, disadvantaged children.

With the exception of one self-contained classroom for severely disturbed children, the program for emotionally disturbed children operates on a resource room basis. Children remain in regular classes and come to the resource room for one hour per day for special help. The resource room teacher works with individuals or small groups of children and also with the regular classroom teacher to help in planning learning activities for these children. The program is organized so that, in addition to the resource room teacher, a team consisting of a head teacher, a psychologist and a family consultant is available for each five schools. This team meets at least once a week in each school to consult with the resource teacher about pupils in the program. The program also has access to pediatric services through a "trade off" with the Headstart Summer Program.

Children are identified for the program primarily at grades one, two, or three. Initially the team meets with the entire school faculty to explain and describe the program and its objectives. Referral forms are completed by teachers and after referral, the child is evaluated for participation in the program. Only underachievers are accepted in this program. However, the team offers assistance to every child, even if not accepted for the program, by providing diagnostic and evaluative services as well as by providing specific suggestions for teachers of children who are referred for the program but not accepted. Parental approval must be obtained before a child may participate in the program. Those referred are subjected to psychological and educational evaluations and the resource teacher gathers additional information from classroom teachers in the school. Among the screening devices employed are the Wide Range Achievement Test and the Frostig Visual Perception Test. On the basis of the information which is accumulated, the team develops individually prescribed programs for each child. A careful anecdotal record is kept by the resource room teacher.

Because this is a Title I program, a rather careful evaluative process has been followed. Each child is evaluated at the end of the school year and also, when necessary, on a day-to-day basis. A handbook was developed for the program but is now outdated and new material is being developed. The major objectives of the program are to eliminate the "educational gap" of the disadvantaged child and to improve the child's adjustment and behavior in the school setting. The orientation of the program is roughly 75 per cent academic, 25 per cent mental health.

The strengths of the program were identified as those relating to modified teacher attitudes toward ways of dealing with emotionally disturbed children, and the help given the individual child is relieving the pressures to which he is subjected, helping him build a better self image and provide tension relief for pupils who are "up tight".

As currently conducted, the program extends through grade six. For children who are unable to participate in this program, the homebound program takes over at the present time. However, plans are underway to extend the program to the secondary school level as resources permit.

With the exception of children in the classroom for severely disturbed youngsters, no special transportation is provided for pupils enrolled in the program.

The program for severely disturbed children utilizes modified regular classrooms. A "time out" room off the main classroom is very desirable, since emotionally disturbed children often need to have a place where they can isolate themselves from others. The major objective in equipping the classroom was to make it a pleasant and effective learning situation. In identifying space for new construction which has been planned, 768 square feet per classroom is called for. This space will serve a maximum of five pupils at any one time.

It is anticipated that the cost of the program will likely decrease as teacher supply catches up with demand. Much of the expense in the program to date has been in the special in-service education of teachers to work in the program. It was necessary to "retread" regular teachers because specially trained teachers were not available. Also, costs are expected to decrease as a result of experience in learning what works and what does not work with emotionally disturbed children.

A great variety of classroom supplies and materials are required for this program. The major stress is on perceptual development and development of the child's self image. Primary attention is given to grades one to three although the resource teacher also works in grades four to six. The objective of the program is to enable children to overcome emotional disturbances so that they can participate in regular classroom situations by the time they reach junior high school.

Trainable Mentally Retarded

The district has provided a program for trainable mentally retarded children for about 14 years. During the 1969-70 school year the program employed 17 teachers and 5 aides and operated in 22 self-contained classrooms. Assuming a classroom aide is available in each classroom, the recommended pupil-teacher ratio is 8 pupils in primary and 12 pupils in other classrooms.

The district does not have a special census identifying such children, but they are identified at approximately age six or in grade one. The program extends through 16 years of age. Children are referred to the program by teachers, doctors, parents, etc. Each child who is referred undergoes a psychological evaluation to determine whether he is eligible for and would benefit from a training program. The primary objective of the program for the trainable mentally retarded is to develop the child in six skilled areas (motor, physical, social, emotional, mental, and academic) so that the child may enter a sheltered workshop program at age 16. The major strength of the present program was preceived to be a competent, dedicated teaching staff.

A special facility for TMR children is under construction. It is planned to take in older children (up to age 18), and eventually to extend the program to younger children as well. Another objective is to reduce the age span in each classroom by establishing more levels.

Children discontinue the program at age 16 although it is hoped that this will be moved up to age 18 in the near future. Upon termination of the program most children move to a sheltered workshop program in the community. The program is vocationally oriented. Boys receive training in woodworking and other simple skills that will help them in a sheltered workshop program after they leave the program.

A special transportation program is provided for TMR children and there is no limit on the number of miles they may be transported. In fact, a few ride the bus for an hour or more each way. The facilities are located on other school sites and lunches are prepared in the regular school cafeteria. The youngest children are served on trays in their classrooms; the other children eat at a central location in the facility. The classrooms observed were basically regular classrooms which had not been remodeled although the facility was separate from the other buildings on the site. In planning new construction, 720 square feet per classroom is provided to accommodate from 8 to 12 pupils. The need for special equipment occurs primarily at the level serving boys and girls ages 13 to 16, where shop tools and workbenches, and kitchen and living room equipment, are needed for the vocational aspects of the program. For 6 to 12 year olds no unusual classroom equipment was observed.

Educable Mentally Retarded

The district has maintained a program for EMR children since 1925. During the 1969-70 school year, 47 elementary and 43 secondary teachers are employed in the program and are located in 30 elementary schools and 13 junior or senior high schools. Other agencies providing help to the program include Vocational Rehabilitation for counseling and placement, a sheltered workshop for post-school programs, and the Association for Retarded Children and Child Guidance Clinic which provide help in various ways.

The program operates primarily in self-contained classrooms, although EMR pupils are fused with regular pupils for non-academic subjects such as physical education and music and also for some academic subjects. The most satisfactory classroom teacher ratio was viewed as 8 to 10 pupils at the primary level, 10 to 12 at the intermediate level, 15 maximum at junior high, and 18 maximum at senior high.

The district does not conduct a school census and children are identified for the program at the first or second grade level. Currently, 500 children are on the waiting list for the EMR program. Children are not taken into the program unless they first have been in a school situation. Teacher referrals are the main source of program participants. Psychological evaluations are conducted and placements are by joint decisions reached at staff meetings. There is a re-evaluation of TMR pupils every three years and EMR pupils at the end of the sixth and ninth core levels, with possible transfer to a TMR if the child's progress indicates this change would be advisable.

The primary objectives of the program are job placement and social adjustment. Basically, it is hoped that the child will be able to live in and adjust to an adult society as a result of his educational experiences.

The major strengths of the program were identified as the sequential one-through-twelve curriculum (although the curriculum currently needs re-design and re-thinking) and the laboratory-classroom concept applied at the junior and senior high school levels.

The entire EMR program is oriented to job preparation and is closely coordinated with Vocational Rehabilitation services at the senior high school level. In addition, some students take vocational courses in the regular school program. Vocational orientation of the EMR program is toward such skills as horticulture, woodworking, home and family living, beauty care, food service, laundry work, and similar activities.

Special buses are not provided for children enrolled in this program. However, a special transportation program will be needed if all pupils are to be served adequately. Many of the physical plants were constructed especially to house the program and the uniqueness was the classroom-laboratory concept. The facility consisted of a module attached to a regular junior or senior high school building. At grade seven pupils spend most of their time in a self contained classroom; at grades eight and nine they increasingly move toward a classroom-laboratory concept in which they spend considerable time in laboratory work on food preparation, horticulture, shop skills, and the like. In planning space for new construction an average of 900-1,000 square feet per classroom is provided, not counting the special laboratory facilities.

Regarding classroom equipment, at the primary level the emphasis is on manipulative games and toys and a great variety of reading material. The lack of funds for equipment and materials was a problem, but during the last two years the availability of state aid for this purpose has been of great help. Need for a work training program as a follow-up activity was expressed.

Special Learning Disabilities

The district has provided a program for children with special learning problems for seven or eight years but only during the past three years has it consisted of more than one classroom. During the 1969-70 school year 16 classes were in operation. The program for special learning disabilities in this system is oriented to children with emotional problems rather than to the underachiever. The objective is to return the child to the regular classroom as rapidly as possible. The most satisfactory pupil-teacher ratio was viewed as a maximum of six pupils per teacher.

Children may be identified for the program at the first grade, although usually the identification occurs later at second or third grade. Originally, a neurological exam was required for placement in the program; this is no longer a firm requirement but every attempt is made to have a pediatrician's report and a neurological report on the child. Referral is by the teacher or by the parent.

No special transportation is provided. If children live outside the attendance area of the school in which the classroom is housed, the parents must provide transportation for them.

The program utilizes regular classrooms which have been equipped with individual study carrels. The study carrels were believed to be exceedingly important for the emotionally disturbed child who is placed in this program. It was estimated that 750-900 square feet per classroom would provide adequate space and that carpeting would be preferable. The classroom was well equipped with individual study cubicals, trapazoidal tables (which the teacher felt were extremely useful), special reading and linguistic materials, a phonograph and listening station, an overhead projector, tachistoscope, a tape recorder, typewriter, tracing board, and a wide variety of specific materials for various learning disorders.

Speech and Hearing Disabilities

The district has had a program for speech and hearing disabled children for many years. The program provides both itinerant speech therapists (who each serve two schools and provide each child with 30 minutes of service twice per week) and special classes for multiple handicapped or severe hearing impaired children. The program takes children at age 3 if they can be identified, and emphasis is placed on identifying children as early as possible. A ratio of 30 to 50 pupils per teacher for speech therapy and no more than 8 pupils in self-contained classrooms is preferred.

The program features audiometric screening of all first graders by itinerant teachers. Thus, children who have not been identified prior to entering school are identified at the first grade level. The criterion for placement in the program is the extent of hearing loss as determined by an optomologist or an audiologist. One class presently is operated for retarded deaf children. Schools are screened from second to sixth grades to identify children who need speech therapy. Referrals are made primarily by first grade teachers.

The major objective of the program is to provide services which will enable the child to function at his maximum potential and, where possible, to remove defects. Ability to communicate, rather than a perfect speech pattern, is stressed.

It is hoped that additional itinerant speech therapists can be employed so that all schools in the district can be served on an alternate year basis. Also, it is hoped that a parental education program can be started for parents of children who have speech or hearing problems.

There is no time in the child's development when he is no longer offered services through this program. Most children are able to enter regular classes by the time they enter second grade, assuming they have been identified as having speech or hearing problems very early in their childhood. For children with severe problems, a re-evaluation is made at the time the child enters senior high and special placement may be recommended.

A desire was expressed for either a fleet of mobile speech therapy units or provision of more adequate rooms in the schools for speech therapists. In most cases speech therapy rooms now consist of whatever space is available in the schools.

At an old elementary school which has been converted for special education use, several classrooms for children with severe hearing handicaps and a special project (federally funded) for multiple handicapped children were observed. The program for multiple handicapped children was primarily for severely emotionally disturbed children who also had other handicaps such as retardation. Observation of these children soon convinces one of the impossibility of dealing with them in any regular classroom situation. A very small class size is essential, and a teacher with a high tolerance for erratic behavior is necessary. Most of the children in this program were on a high level of medication.

District C

Neurologically Impaired

The school district has provided a program for this category of exceptional children since 1964. There is only one teacher in the school district who works in this program. Pupils do not receive all of their instruction in a special self-contained classroom; the time spent there is dependent on the intensity of the child's impairment. About 10 pupils receive one-half day instruction in the special classroom and one-half day instruction with regular classes, and five pupils receive most of their instruction in the special classroom. The teacher believed that the most satisfactory pupil-teacher ratio for this particular program would be approximately 10 pupils per teacher.

A special house-to-house census is taken, and parents are asked to identify children with special problems. The census provides for an identification of children needing the services offered by this program. The first grade is the earliest level at which children are identified (in the school setting) for this program and the earliest that services are made available. Before children can enter this program they must have a neurological examination by a licensed neurologist. The pupils involved in this program are transferred to the educable retarded program, to the emotionally disturbed program, or returned to the regular program at the end of a specified period of time. The structure of the program and the individualized attention given to pupils were cited as the major strengths of this program.

A special bus is provided to transport pupils in this program. The physical plant was remodeled and the classroom was designed and remodeled especially for this program. Features of the classroom include individual study booths and a room with a one-way mirror for teacher observation.

Evaluation of pupils is enhanced by maintaining a cumulative folder on each student which is available to a special educator project committee. The committee meets bi-monthly to evaluate the progress of each student in all exceptional programs. The special equipment observed in the classroom included film strip, opaque, and film projectors, a perceptomatic machine, and a listening corner.

Emotionally Disturbed

The school district has offered a program for emotionally disturbed children since 1961. The amount of time a pupil in this program spends in a special classroom varies with the intensity of the pupil's problem. Thus, six students receive one hour of instruction per day; four receive three hours of instruction; and one student receives all his instruction in the special classroom. The belief was expressed that from six to ten pupils per teacher is the most satisfactory pupil-teacher ratio for this program.

Children are identified through a special census taken prior to the time they start kindergarten, and instruction in this program is available starting in the first grade. Procedures used to select children include referral by the regular teacher, consultation with a clinical psychiatrist and the school psychologist, and committee action. The committee includes a regular classroom teacher, a special classroom teacher, a principal, a nurse, the school psychologist, the social worker, the director of special education, and a clinical consultant. Placement of all special education children must be approved by this committee. The major strengths of this program cited were the selection procedure, the evaluation procedures, and the competence of teachers in the program. After leaving the special classroom some pupils enter the high school vocational-technical education program and others enter a sheltered workshop program.

Special materials and equipment observed in the classroom included tapes, programmed reading equipment, animal cages with small animals, an assortment of record players, tape recorders, typewriters, and film strip projectors, a listening lab, and a special kitchen. In addition to the regular teacher, a half-time teacher's aide was available to instruct students and assist in the classroom.

Educable Mentally Retarded

The school district has maintained an EMR program for several years. Pupils in this program do not receive all their instruction in a special self-contained classroom. They spend approximately two hours each day in the EMR classroom and the rest of the day in regular classrooms. The most satisfactory pupil-teacher ratio was thought to be five pupils per teacher at one time.

Seventh grade is the earliest level at which children are identified and training is made available. The pupil selection criteria are established and reviewed by a committee. After completing junior high school, EMR pupils are given an opportunity to enter vocational-technical courses offered in the senior high school and/or sheltered workshop programs also offered at the high school level. The materials and equipment observed in the classroom we visited included microscopes, a work bench and vices, and several illustrative charts.

Visually Handicapped

The school district has offered a program for this category of exceptionality since 1959 and currently there is one classroom in the school district serving children who are visually handicapped. The amount of instruction received in the special self-contained classroom varies with the nature of a pupil's visual problems. For example, two pupils receive four hours of special instruction each day; seven receive three hours per day; and one pupil spends one hour per day in the special classroom. Students attend regular classes for physical education, music, and art. The belief was expressed that a satisfactory pupil-teacher ratio for this program is approximately 10 pupils per teacher.

The procedures employed to identify children for this program are much the same as those employed in other programs. The earliest level at which children can be provided with instruction in this program is the first grade. The criteria used to select children for this program include, in addition to those described for other programs, referral to an ophthalmologist who is a clinical consultant to the special education committee. After examination, committee action is taken to place pupils who have specific visual problems in this program. The major strengths of his program which were cited included thorough evaluation of pupils and integration of the pupil into the regular program as soon as the committee believes he is ready.

The transportation provided for pupils in this program differs in that they are bussed from neighborhood attendance centers to the school where the program is housed. The committee meets to evaluate pupils approximately every other month. Special materials and equipment observed in the classroom included large magnifier machines, hand magnifiers, head magnifiers, talking records, large print books, tacto boards, large print typewriters, large print games, listening centers, and special tape recorders.

Speech Handicapped

This district has provided a special program for speech handicapped pupils for many years. A total of 18 classrooms was served by this program during 1969-70. The grouping arrangements provide for groups of from one to five students per teacher for a period of 20 minutes. The idealized pupil-teacher ratio was 100 pupils per teacher, assuming the grouping arrangements just described.

The identification procedure for children with speech difficulties is much the same as for other programs offered in the district, except for the specific tests. One criterion for selection of children includes screening by a speech therapist. Speech therapists screen all children in grades one and two, but teacher referral of a pupil may be made as early as kindergarten. Services may be offered pupils in this program as early as kindergarten. The major strengths cited for this program included a well-qualified staff, small group discussion of problems, and good supervisory support.

The physical plant we observed was constructed especially to house this program. A small room with an adjoining observation room is available to each speech teacher. Special materials or equipment observed in the classroom included a language master, a tape recorder, Peabody Kits, and special books and materials available through the central office. The program and the pupils are evaluated periodically by the speech therapist committee under the supervision of the program supervisor.

Educable Mentally Retarded

This school district has provided a program for educable mentally retarded pupils for 14 years. Presently, 29 classrooms are serving such children – 14 at the elementary level, 9 at the junior high level, and 6 at the senior high school level.

Pupils in this program receive all their instruction in a self-contained classroom; however, some services are provided by specialists, e.g., music and physical education. The idealized pupil teacher ratio was identified as 10 pupils per teacher.

The earliest level that children are identified for this program is at the fourth or fifth grade. Identification of children to be engaged in this program occurs through teacher recommendation and psychological testing.

The child is disengaged from the program at the beginning of the junior high school where he is integrated into the regular program relative to his strengths in a given subject discipline. Regular vocational-technical courses are available to these children in both the junior and senior high school. Transportation is provided on the same basis as for children in the regular program. However, children in the EMR program are allowed to bring sack lunches to school; whereas, children in the regular program are required to go home for lunch.

Trainable Mentally Retarded

The school district has provided the program for trainable mentally retarded pupils for approximately four years. Six classrooms are currently being served, five at the elementary and one at the junior high level. The children receive all their instruction in a self-contained classroom except that specialists in music, art, speech, and physical education provide itinerant services. The idealized pupil teacher ratio for this program was identified as 10 pupils per teacher. It was further idealized that an aide should be provided to follow a programmed sequence of study with individual children.

The earliest level at which children are identified for this program is kindergarten. The identification process includes psychological testing at the kindergarten level. The psychologist recommends children for participation in the program. Pupils may receive service to 21 years of age.

A concern was expressed that satisfactory materials for this program were not available commercially. It is not a common practice to provide vocational-technical courses; however, some isolated cases have been provided for in the past.

All children in this program are provided special transportation and food services. The food service program is somewhat unique in that the teachers prepare lunch with the children as part of their training program.

A sheltered workshop is available for pupils identified as trainable mentally retarded after they reach the age of 21. However, if recommended by the Director of Special Services, a pupil may be engaged in sheltered workshop activities at age 18.

Auditorily Handicapped

The school district provides one classroom at the elementary level for auditorily handicapped children. At the junior and senior high school levels, the auditorily handicapped are served on an itinerant basis. Specialists in art, music, and physical education provide services to the children engaged in this program. The idealized pupil-teacher ratio was expressed as 5:1.

Children are recommended for placement in the program by a teacher. The child is given both a physical and a psychological examination. Children are integrated into the regular program at the junior and senior high school levels.

If a student lives outside the attendance boundary of this specific school, he is provided transportation to the school where the program classroom is located. Specialized equipment observed in this program included an auditory trainer.

Physically Handicapped – Cerebral Palsy and Hospitalization

A visit was made to a local hospital with a teacher who has been working with the physically handicapped for 21 years. The school district has provided a program for this category of exceptionality since the early 1940's. The local Cerebral Palsy Foundation and the local Association for Retarded Children provide additional services for children involved in this program. The children receive all of their instruction in a special classroom. The idealized pupil teacher ratio was identified as 10 pupils per teacher. It was further idealized that a teacher's aide should be provided with each 10 children.

Children are identified for participation in this program by physicians. Future plans include the hope that there could be developed a computer assisted instruction center, since children with these handicaps seem to benefit from working with mechanical devices. It was further hoped that a small room could be provided so that individual pupils can be alone at times when they are "up tight".

Children are disengaged from the program when they reach a point where they can handle themselves reasonably well in the regular school program. Vocational-technical courses may be pursued after the child is integrated into the regular public school program. Special transportation is provided for those pupils who are not hospitalized. The food service program is different from the regular school program in that all children are provided hot lunches. The classroom in the hospital was remodeled specifically for the educational activities provided by this program.

A program for physically handicapped children also is operated at the hospital. Children in this program are served on an itinerant basis, the duration of which is equivalent to that of their hospital stay. If the child cannot return to the regular school program upon leaving the hospital, itinerant services are provided in the home. The idealized pupil teacher ratio for this program was identified as eight pupils per teacher. Because of the short term nature of the stay of any child in this program, each pupil's program must be individualized. Children are identified for participation in the program by their attending physician.

District D

Educable Mentally Retarded

The district has provided a program for this category of exceptional children since 1962. There presently are a total of seven classrooms served by this program. Among the outside agencies which provide assistance to this program are the Parent Teacher Association, sorority groups, and the Lions Club.

Classrooms for the primary grades are basically self-contained; whereas, in the intermediate grades there is a move toward more integration with regular programs. An idealized pupil-teacher ratio in this program was thought to be ten pupils per teacher.

A portion of the identification process for children needing services offered by this program is accomplished through a family census taken prior to kindergarten. The census form asks parents to identify children with handicaps or other problems, e.g., blindness, partial sight, orthopedic, deafness, mental retardation, and speech or hearing problems. These children are then provided with special instruction in the first grade.

The selection criteria for this program includes the census record, referrals by the classroom teacher, evaluation by the school psychologist, and a decision by the special education evaluation committee regarding placement in the EMR program. The school psychologist uses the Stanford-Binet and Bender Intelligence tests. A case history is developed on each child under consideration. The special education evaluation committee--consisting of the psychologist, the coordinator of exceptional children programs, the building principal, and the classroom teacher-evaluate each individual case for possible placement in an exceptional program.

The major objectives for this program are a satisfactory contribution to and integration into the community and satisfactory job placement.

The State law provides that these children be provided with training until age 21 unless a satisfactory job placement is found. Normally, the school provides activities until the age of 17 or 18. After age 21, the state maintains a vocational rehabilitation program for these pupils.

Transportation is provided from the pupil's neighborhood school to a school where the special education program is in operation. Among the unique features of the classroom we observed were an office for the teacher, a kitchenette for various classroom activities, and a bath and shower for pupils.

This program is evaluated through the following steps: the teacher provides a program evaluation each semester; every three years the special education committee re-evaluates the total program; and the coordinator of exceptional children programs undertakes an evaluation each semester. Pupils are evaluated each year and the procedure involves conferences with parents and pupils.

Neurological "Minimal Brain Injured"

The district has provided a program for children with this handicap since 1963. There are a total of six classrooms in the district. Other agencies which assist in some way with this program include the National Association for Children with Learning Disabilities, the Lions Club, and the Salesmanship Club.

Children in this program do not receive all their instruction in a self-contained classroom. Pupils are moved from regular classrooms to the special classroom. The length of their stay in the special classroom depends upon the nature of their problem. The idealized pupil-teacher ratio for this program was thought to be ten pupils per teacher.

The identification procedures for participation in the program are similar to those employed in the EMR program. The earliest level at which children are identified for participation in the program is grade one. The criteria used to select children are much the same as those for other exceptional programs, except that a neurological test is required and is administered by a neurologist.

A child with a neurological problem is not provided services by the school district beyond the twelfth grade. Transportation is provided from the child's neighborhood school to the school where the special program is available.

The classroom we observed was a remodeled regular classroom which included individual study carrels. The six study carrels allowed the students to think, reason and work on individual projects in private. The program evaluation and student evaluation is much the same as for the EMR program.

The special materials and equipment observed consisted of a number of unique items. Items observed included an exacore, pogo stick, rocking boards, stereo readers, peg boards and patterns, a light tracking device, anograms, walkboards, balance boards, memory games, mathematic kits, and several tapes and workbooks.

Trainable Mentally Retarded

This school district has provided a program for TMR pupils since 1965. One classroom for this program was provided in 1969-1970. A few outside organizations provide monetary and other support for the program. In particular, regional educational agencies funded under Title VI of ESEA provide access to materials for program development.

Students in this program receive all their training in a self-contained classroom. The teacher in this program considers the idealized pupil-teacher ratio to be 8:1.

The identification process for selecting children for this program is very similar to that described for the EMR program. The earliest level at which instruction is available is grade one. The criteria used to select children for the TMR program are the same as those used for the EMR program, except for the child's intelligence level.

Training is provided for children to the age of 21, but the age of release depends upon the pupils ability to adapt to the outside social and economic world. Pupils are transported from neighborhood schools to the schools which have classrooms for this exceptional program.

The program and student evaluation are much the same as for the EMR program. Special materials and equipment observed in the classroom included balance boards, storage cabinets, blocks, puzzles, lacing boards, button boards, gripper boards, lacing boots, and nested blocks.

Emotionally Disturbed

The school district has provided a program for emotionally disturbed children since 1964. During 1969-70 it operated one classroom for emotionally disturbed children. Children in this program do not receive all their instruction in a self-contained classroom. Out of a six hour school day, pupils spend about one and one-half hours in the special classroom. The remainder of the day is spent in regular classes. The idealized pupil-teacher ratio was considered to be eight pupils per teacher.

The identification process for children needing the services offered by this program is much the same as that described for the EMR program. The earliest level at which children can receive instruction in this exceptional program is grade one. In addition to the criteria used to select children in other programs, pupils selected for placement in this program must have a psychiatric exam by a licensed psychiatrist and a neurological exam by a licensed neurologist. Children in this program do not receive services beyond the twelfth grade.

The classroom we observed was remodeled specifically to house this program. The room was divided to allow for unique activities in one area and a simultaneous instruction program in another portion of the room. Additional materials or equipment observed included an extensive array of games and books not normally found in regular classrooms.

The evaluation process is much the same as for the EMR program. In addition, a behavior chart, or behavior card is provided for pupils in lieu of grade reports.

Speech Handicapped

The district has provided a speech therapy program since 1963. Pupils normally participate in the regular program and are brought to a resource room to receive about 30 minutes of instruction each day from the speech therapy teacher. The ideal pupil-teacher ratio for a speech therapy program was identified as 60 assigned pupils or four pupils at one time.

The school district census mentioned earlier helps identify children with a particular speech difficulty. Children are provided speech therapy as early as the first grade. Teacher observation is the most common means of identifying children with speech problems. Pupils go through speech and hearing screening on alternate years. Students are provided speech therapy services from the first grade through the twelfth grade.

The rooms used were designed especially for the speech and hearing program. All new schools being build in this district are designed to include speech therapy facilities.

The program and children are evaluated in much the same way as in other programs. In addition, children receive a six-week report on their progress and each year a parent conference is held with parents of children with speech difficulties. The special materials and equipment observed in the classroom included a mirror, an audiometer, an Illinois Test of Sociolinguistic Abilities, and a Peabody Kit.

District E

Educable Mentally Retarded

This regional education agency has maintained a program for educable mentally retarded children for eight years. Fifty-six classrooms of children were served by this program during 1969-70. Pupils receive all instruction in a self-contained classroom except for art and physical education. The idealized pupil-teacher ratio was viewed as 10:1. A school census provides for identification of children who need this program. The earliest level at which children are identified is the first grade. The process to select children begins with testing by the local school; and on the basis of the test results, the school makes a recommendation. Placement is based on the pupil's I.Q.

The strengths of the program were thought to be its work-study orientation, the workshops held during the summer, and excellent instructional materials.

A child may be placed in a private school with his tuition paid only if the regional agency does not provide a program for him. State aid in the amount of $2,000 per child per year is paid. The school is charged with the responsibility of providing education for the child until he reaches age 21. Vocational-technical courses are offered to children in this program.

The transportation program provides for bussing pupils from the various school districts to the attendance center where the program is housed.

Pupils must be re-evaluated at least every three years by a psychologist. Motor coordination and visual perception are emphasized in the program. Special equipment and materials observed in the classroom included a balance beam, a Calfone listening station, a Peabody Language Development Kit, a cassette tape recorder, and and record player.

Auditorily Handicapped

The agency had operated a program for the auditorily handicapped for only three months prior to the project staff's visit. There are two resource rooms and two itinerant teachers serving this program. The pupils are not placed in a special classroom situation. In the teacher's opinion, the most satisfactory pupil-teacher ratio is three pupils per teacher.

A regular school district census is taken and provides tentative identification of children needing this program. The earliest grade-level that children are identified is kindergarten. Audiograms are used in the selection of participants.

The transportation program provides special buses to the attendance center where the program is housed. All of the children are in the regular kindergarten classrooms and attend the special program for two hours each school day. This program serves children with moderate to severe loss of hearing. Special equipment observed included a Warren Auditory Unit, a language master, and Peabody Language Development Kits.

Visually Handicapped

The regional agency has provided a program for visually impaired children for 10 years. There are five classrooms--two for blind pupils and three for partially sighted pupils--serving this program. The children receive their instruction in the regular program which is in keeping with the district's philosophy of retaining the child in the regular program. In the teacher's opinion the ideal classroom ratio was thought to be six pupils per teacher.

A school district census helps to identify children who may need the services of the program. Kindergarten is the earliest level that children are identified for the program. A medical report is used to select children to receive these special services.

A major strength of the program was perceived to be the fact that it enables children to live at home rather than attend a residential school. A pupil generally may participate in this program until he reaches the age of 19. Industrial art classes, including auto mechanics, are offered to all pupils.

Special Learning Disabilities

The agency has provided a program for children with learning disorders for five years. Currently, 55 classrooms and 11 resource centers are utilized in this program. Pupils receive all instruction in a special classroom with the exception of three periods of physical education per week, one period of art per week, one music lesson per week, and one library period every other week (however pupils have access to the library at any time). The most satisfactory pupil-teacher ratio was perceived to be five or six pupils per teacher.

The earliest level that children are identified for placement in the program is kindergarten. Teachers in school districts served by the agency refer problem pupils to the principal who then refers the pupil to the regional agency. A parent may refer a child directly to the regional agency. A psychologist then evaluates the child for possible placement in the program.

The strong points of the program were perceived to be individualized instruction, a thorough evaluation of each childs learning processes, and the fact that all teachers are in-training the first year.

The school district determines the duration of time that a child is offered services through this program although it usually is from age 5 to 18. A full-time coordinator is available for the work-study program and a half time teacher is stationed at training centers to assist the handicapped. Children in the program are grouped according to age.

Children are bussed to the special program location.

The pupil's in the program are evaluated by means of the Metropolitan

Achievement Test which is administered twice a year. The Slingerland Test is administered every 2 years. Teachers also conduct informal testing throughout the year. The work-study coordinator conducts follow-up studies on all students who leave school.

Trainable Mentally Retarded

The process for identifying and selecting pupils to participate in the agency's program for trainable mentally retarded children is closely coordinated with each local school district the agency serves. The local school district provides its own evaluation and selection criteria and then decides which children will be sent to the regional agency for training.

Pupils in the program receive most of their instruction in a self-contained classroom but receive 20 minutes of instruction a week in physical education. The idealized pupil-teacher ratio for this program was perceived as 6:1.

Special transportation is provided children in this program. The agency pays the local school district $5,000 rent per room, per year for which the local school district provides suitable space and basic equipment for the program. The local district is also expected to provide specialists and to provide pupils in the special program with the same services that regular program children would receive.

District F

Educable Mentally Retarded

This school district has maintained a program for EMR children for over 50 years. Three primary, three intermediate, four junior high, and three senior high school classrooms were involved in this program. The program is operated primarily in a self-contained classroom with some integration into the regular program for physical education, music and art classes. A service group provides volunteer assistants for two and one half days per week. The most satisfactory pupil-teacher ratio was viewed as being 12 or 13 pupils per teacher.

Kindergarten is the earliest grade level at which children are identified for participation in the program. Teacher referral and an intelligence test are the major criteria used to select children for the program. The strengths of the program were perceived to be strong administrative support and an abundance of equipment and materials. Plans for satisfying future needs include changing the program from a medical to an educational model.

The transportation program for EMR pupils currently is the same as for regular pupils although plans are being formulated to transport pupils to the location where the program is housed. The EMR classroom for primary children was remodeled especially for this program. Carpeting is provided in EMR classrooms but not in regular classrooms.

Speech Handicapped

The school district has operated a program for speech handicapped children for over fifty years. Sixteen elementary, four junior high, and two senior high schools are served by this program. Children are served by itinerant teachers and are not segregated in a self-contained classroom. The idealized pupil-teacher ratio was viewed as from one to four pupils per teacher, depending upon the severity of the pupil's problem.

Kindergarten is the earliest level at which children are systematically identified for the speech program although pre-school children are served by the program upon parental request. The parent or the teacher refers the child to the speech therapist. The strengths of the program were viewed as intensive instruction and a reasonable case load.

Future plans call for the inclusion of an audiology program and a team speech and language diagnostics program. The child's speech development determines the point at which he is no longer offered the services of the program.

A speech therapy room had been constructed especially to house the program at the elementary school we visited.

The child's progress is evaluated by teacher observation and pupil evaluation checklist.

Physically Handicapped

The school district has provided a program for the physically handicapped child for 42 years and the program director has been affiliated with the program for 28 years. The equivalent of two classrooms of children are integrated into regular classrooms throughout the school. Several community agencies provide specific services and equipment for the program. The most satisfactory pupil-teacher ratio was thought to be 12:1.

Children needing the services offered by this program prior to kindergarten are accepted only on the basis of a medical referral. The earliest level at which children are identified for this service is kindergarten. Usually a combination of physician and psychologist referrals is used to select children. The strengths of the program were identified as a highly qualified staff; the exceptional child's participation in the regular classroom; and the medical, psychological, and social services which are provided.

Physical therapy services are offered from birth to age 21. Classroom instruction is offered from the age of 5 to 18. Termination of program services to children is dependent on an acceptable medical diagnosis.

A van with a special loading ramp transports pupils who are confined to wheelchairs. Taxi service is provided for ambulatory patients. Food service differs from that provided in the regular program in that a cook is hired specifically to provide a hot lunch program for all exceptional children. The physical plant was constructed to house this program. The unique facilities include a swimming pool, health room with special tables and hoists, restrooms, and a parent's waiting room.

In evaluating pupils, the staff utilizes a standard checklist for each case.

Other important aspects of the program are (1) the program provides for parent education, and (2) children who live too far from the school to commute daily are placed in boarding homes by a social worker. Two physical therapists and five matrons assist in providing program services.

District G

Trainable Mentally Retarded

This school district has provided a program for TMR pupils for approximately 17 years. In the opinion of the teachers interviewed, the most satisfactory pupil-teacher ratio varied with the age of the students. With 6-9 year olds the most satisfactory ratio would be 9:1; 9-14 year olds 10:1; 14-18 year olds 12:1.

There is no school district census to identify children who have special educational needs. Children are generally identified when they enter kindergarten. Children enrolled in the program vary in age from 6 to 18. Placement is determined by an admissions committee in accordance with state criteria.

A rather unique classroom arrangement was observed in one of the schools. Children of the primary age level (6 to 8) are in a self-contained classroom. Older pupils are divided among 6 teachers and participate from approximately 50 minutes a day in each of a variety of activities. At the end of each 50 minutes they exchange teachers and activities. The activities which they can participate in are gardening, sewing, creative arts, arts and crafts, woodworking, homemaking skills, and various jobs around the school.

Both the objectives of the program and activities and methods employed in it are available in published form. Teachers cited the emphasis on ability to develop the necessary skills to live as an independent individual as one of the major strengths of the program. Because pupils are terminated at age 18, a parent's workshop has been established which provides additional training. In addition, there is a pre-school program which attempts to take care of these youngsters before they begin their regular school career.

The vocational technical courses offered these pupils would probably more accurately be titled pre-vocational courses. They are generally relatively unskilled jobs such as gardening, maid work, and housekeeping.

The transportation program is different for these pupils in that they are transported from home to school and back home. The transportation program utilizes vans rather than buses.

The physical plant we observed was constructed specifically for this program and is an exceptional facility. There are group areas where the pupils meet, living and dining areas, a kitchen area, a patio with garden areas, and toilet facilities in each room. The teachers expressed the belief that some additional maintenance costs are incurred – such as additional cleaning as well as the fact that some pupils are rather hard on the furniture.

The program is not evaluated formally. Parent comments are requested at the end of the year and each pupil's progress is evaluated.

Physically Handicapped

The school district has provided a program for crippled children for approximately 18 years. There are 58 children being served in this program in six separate classrooms. Services are provided this program by agencies other than the school district. County funds provide the salaries of a full time occupational therapist and physical therapist and the county conducts clinics for the program staff. The state school which is located nearby provides diagnostic and referral services.

Pupils in the program generally receive all of their instruction in a self-contained classroom. They do, however, leave for therapy sessions: speech, physical and occupational. Those who are able participate in limited woodworking classes, arts and crafts, and sewing. Some pupils are helpers in the food service department and act as tutors for younger children.

The idealized pupil-teacher ratio varied from 9:1 in kindergarten and nursery school to 10:1 in the primary and intermediate classes, to 12:1 with older children.

Children are identified for the program at the nursery school level and enter the program at that time. The criteria used to select pupils for this exceptional program follow the state specification. The children must be at least of educable level and must be able to profit from the school situation. The placement or admissions board is made up of a doctor, a coordinating therapist, a teacher, the director or assistant director of the school district's program, and the building principal. In addition to the objectives of the program found in the state bulletin, the program attempts to establish the independence of these children and place them in society. Children in the program are offered services until they reach age 21. However, the primary goal is to develop the ability of the pupil to function in a regular classroom before that time.

Two special buses, equipped with an hydraulic lift on the sides and on the back, provide portal to portal transportation service.

The physical plant was constructed especially to house this program: halls are especially wide, there are walk bars in the halls, and special facilities in the restrooms. The special equipment which abounds in the building requires special maintenance. Special skid resistant wax is used on the floors. Among the special equipment and materials observed in the classrooms were walkers, wheelchairs, stand-up tables, cut-out desks, electric typewriters, bikes, balance beams, a loom, and occupational and physical therapy equipment.

An evaluation of the pupil's progress constitutes an evaluation of the program. The admissions committee yearly re-evaluates each student within the program. Informal parent comments are also sought.

Educationally Handicapped

The following description represents an attempt to clarify the program for the educationally handicapped which is provided in this school district. There are five separate categories in which pupils may receive services.

Special Classes – In this arrangement up to 12 pupils for primary, upper elementary, and secondary levels are instructed for the entire day by a single teacher. Only limited pupil interaction with the pupils in regular classes would normally occur with such an arrangement.

Group Learning Assistance or Learning Disabilities – Using this approach the minimum group size is six pupils; the maximum group size is eight pupils. The teacher may teach as many as 32 different individuals in one day. (This district's program load usually is fewer than the maximum.) The major difference between this program and the previous program is that the pupils cycle back into the regular classroom for those activities in which they can succeed. Some students may receive only a half hour of special assistance while others may receive nearly a full day. In each instance the child remains in his regular school attendance center and, therefore, does not suffer any feelings of being "different".

Tutorial Learning Experience – This classification would also fit under the learning disability program. The approach is identical with that employed in the group learning assistance program except that the size of the group is from one to five pupils. Usually, the length of instruction time is substantially less, ranging from a half hour to about three hours.

Combination of the Group Learning Assistance and the Tutorial Learning Experience – When these two are combined, the pupil may receive individualized instruction for a short time on a 1:1 relationship with the teacher. Pupils might work in a small group for an additional period of time and then return to the regular classroom for that portion of the day's activities in which they can succeed.

Home and Hospital Instruction – Home and hospital instruction is for those students who have physical afflictions which prevent their school attendance. The instruction is offered for one hour each normal school day in the pupil's home or in the hospital. The home instruction is not permanent and is not considered an adequate solution to the child's problems. Home instruction allows some assistance to be given pending the development of a program which will more nearly meet the needs of the pupil.

The school district has operated a program for the educationally handicapped for the past six years. There are over 900 pupils enrolled in the program in 13 self-contained classrooms and 26 group learning or tutorial programs. The idealized pupil-teacher ratio in the program was five to eight pupils per teacher.

The objectives of the program and the activities and methods employed in it are being published by the school district. Among the several strengths of the program cited were good communication with parents, an adequate administrative staff, good coordination between staff members, and the fact tha pupils can remain in their own school attendance center.

There is an instructional materials center in the school district devoted entirely to the educationally handicapped program. The evaluation procedures employed in the program are quite extensive.

A pupil is dismissed from this program if he reaches a point where he can no longer profit from the program, as determined by the placement commiteee. The student is terminated when he reaches 18 years of age or graduates from high school. Transportation is provided those students who live outside the regular attendance area of the school.

Visual Resource Center

The function of this center was to provide for all visually handicapped children in the school district. No classes, as such, are held in this center; children come to the facility to obtain materials or to work with one of the three resource people that are available. Among the resource people are a braillist and a mobility teacher. They help the child to adjust to himself and to work related situations. For instance, they teach pupils how to use the telephone, how to interview for jobs, etc. The particular strengths of this program were the great variety of materials that were available, the physical facilities, and the many volunteers available to assist teachers with their work. The materials and equipment in the center included such things as a braille recorder, a large globe, magnifiers, talking books, a dictionary and World Book Encyclopedia in braille, a braille duplicator, three recording booths, and all the textbooks in the school district transcribed on tape.

Auditorily Handicapped

The district has provided a special program for deaf children for several years. Most of the instruction for these children is provided in self-contained classrooms. Although pupils are with children of their own age, a continual attempt is made to integrate them with regular children for certain activities. The most satisfactory pupil teacher ration was perceived to be 4:1 or 5:1.

The earliest children are identified and placed in the program is at three years of age. Placement is based primarily upon the recommendation of physicians and the state placement committee. The services of the program are terminated when the child reaches 21 years of age. Vocational courses are offered these exceptional children in high school and include metals, drafting, home economics, and typing. The strengths of this program are perceived as an integrated approach in both curricular and extra curricular activities and the team approach used to teach these children.

In the new facilities being planned for this program there will be an observation room for both parents and teachers. A pod arrangement with an activity room in the center will be utilized so that team teaching activities may be attempted.

Intellectually Gifted

This is a very diversified program and is difficult to describe for it involves first through twelfth grade students and is organized primarily on an individual program basis. For example, a gifted child might be in only a science program or might be in only a math program which has been specifically designed for gifted pupils. The school district has 200 programs that have been written specifically for gifted children. It is also difficult to determine what support personnel are needed, for the instructional programs are written to accomplish the specific objectives of the course and there are no standard courses.

The earliest level at which children are identified is grade one, although most pupils do not begin the program until third grade. The major criteria employed in selecting pupils for this program is that they have an I.Q. of over 130. Once children are identified, they can continue in this program until graduation; no further testing is required.

The strengths of this program were perceived to lie in the autonomy that is retained by each individual school, the variety of offerings which are available, and the number of teachers that are involved. A teacher designs a program and submits it for approval. If it is accepted, the teacher is given an opportunity to teach that program. All programs that are available to pupils in the regular program are available for pupils in this program. However, field trips are utilized more extensively in the program for gifted children.

A unique feature of the program is the natural science center that is being organized and in actuality is a remodeled house. This center will be used for the gifted children in the science area.

Developmental Learning Program

This program is similar to the EMR program. No classroom was observed in this program and these comments were based primarily on a discussion with the program director, who has been in this position for one year.

Pupils in this program do not receive all of their instruction in a self-contained classroom. The primary grades are mostly self-contained; intermediate grade children are integrated with physical education and other classes; in the middle school two other classes are programmed; and in the high school two or three outside classes are programmed for pupils. The idealized pupil-teacher ratio was perceived to be 10:1. There is no identification of these children prior to kindergarten and the earliest level at which pupils are identified for this program is grade two.

Speech and Hearing

This program has been provided by the districts for several years. The program provides essentially itinerant services; pupils do not receive their instruction in a self-contained classroom. The most satisfactory pupil-teacher ratio was perceived to be 50:1 so that children may be seen by the therapist twice a week.

The earliest that children are identified for participation in this program is kindergarten. The screening is done by the speech therapist. The strengths of this program were identified as the physical facilities, a flexible case load depending upon the severity of the pupil's handicap, the available equipment, the involvement of the building principal (who assumes responsibility for programs within his school), and the retesting each year of all children who have been dismissed from the program. The child is no longer provided speech and hearing services after he has returned to normalcy or has graduated from school. The program is evaluated primarily by the teacher with no formalized or standardized evaluation procedures used.

District H

Educable Mentally Retarded

The school district has maintained a program for EMR children for approximately 20 years. There are several classrooms for EMR children located throughout the district. Church groups play an important role in the EMR program; they provide volunteer teacher aides and assist with field trips.

Pupils generally receive all of their instruction in a self-contained classroom although on occasion they are integrated with regular pupils for socialization purposes. The idealized pupil-teacher ratio was believed to be 14:1.

No formal school district census is taken for the identification of exceptional children. Children generally spend one year in the first grade before they are identified for participation in the program. The usual criteria for selecting children for this program are (1) teacher recommendation, (2) psychological tests, (3) case history, (4) medical examination and (5) parental permission. The above information is provided to a placement committee made up of the assistant superintendent, the director of special education, a psychologist, and the building principal. This committee determines the placement of the pupil.

The primary program goal, according to the teachers, is to enable the child to return to the regular classroom if possible. If this is not possible, the pupil is retained in the program until age 21.

One privately operated program for this exceptionality was identified in the school district – a training center supported by the United Fund.

The transportation program and the food service program were no different for these pupils than for pupils enrolled in the regular program. Neither the physical plant nor the classroom was remodeled in any way for this program. No special materials and equipment were observed in the classroom.

Trainable Mentally Retarded

The school district has provided a program for this category of exceptional children for approximately 24 years. During 1969-70, there were eight classrooms of pupils in the program. A state school is located in the school district but has expressed a desire to avoid duplicating services provided by the school district. It appears that parents may choose which school their child will attend. The state school had not decreased the school district's responsibilities appreciably.

The classroom grouping arrangements are somewhat unique. Eight teachers are located in a school and each one is responsible for a separate instructional category. These categories are: gross motor skills, fine motor skills, socialization, art, language skills, physical education, homemaking skills, and other functional concerns. The 90 youngsters involved in the program rotate among these teachers every 30 minutes. Although this results in a class load slightly above the most satisfactory pupil teacher ratio of 8 to 1, the program seems to work out especially well.

Since there is no school district census to provide for the identification of these youngsters prior to beginning school, children generally spend one year in a regular first grade class. Either the parents or the teacher can initiate action to have a child placed in a TMR class. As with other exceptionalities, the placement committee is provided with all pertinent information and makes placement decisions.

The teachers generally follow the state guidelines as to activities and objectives of the program. In particular, they are concerned with developing the child to the limits of his potential. A teacher related, "If all else fails, we hope to make them acceptable and lovable." Among the strengths of the program were the cooperative effort within the school, competent supervisors, freedom for experimentation, and the facilities.

Although all of the TMR pupils in the district are enrolled in one school, transportation remains the responsibility of the parents. The food service program is no different for pupils enrolled in this program although two days a week the older classes prepare the food for the school in their homemaking class.

Although the building which houses these classrooms is old, the program is exceptionally good. The pupils are trained to take care of themselves as well as their environment. There is no formal attempt to evaluate the program. Among the special materials and equipment which were observed were maps, physical development equipment, balance boards, horizontal ladders, large tires, mirrors, craft work, tools, sewing machines, hair dryers, musical instruments, and a wide variety of home furniture.

Visually Handicapped

The school district has provided a program for the visually handicapped for 13 years. During 12 of these 13 years the teacher functioned in a self-contained classroom. Now, however, she functions as an itinerant resource teacher and works in grades 1 through 12. She is responsible for seven children through the school district. Because these children are located in different schools, the teacher finds it difficult to be present at the precise moment of a child's need.

There is no formal school district census taken to identify the children needing these services. Generally, the children are identified in the first grade. As with the other exceptional programs, pertinent information is provided to the placement committee, and this committee is responsbile for the placement of the child. The objectives of the program as well as the activities and methods are those outlined in the State Guide. The teacher stated a preference for the self-contained classroom over the resource concept.

No privately operated programs for this exceptionality were identified in the school district. Services are available to a child from the time he enters school until he graduates. Vocational technical courses are not offered to these children. The transportation and food services are the same as provided for pupils in the regular program.

Some of the special equipment and materials which were observed were large type world book, braille encyclopedias, a primary typewriter, textured globes and maps, tape recorders, talking book machines, an electric braille typewriter, braille math equipment, and braille writers.

Special Learning Disabilities

The school district has offered this program for two years. The school district has seven teachers serving in this particular area; five work in self-contained classrooms and two function as resource persons. The idealized pupil-teacher ratio was identified as 3:1 with a total caseload of 18 pupils. A special need for psychological services for assistance in dealing with the emotional problems of these youngsters was identified by teachers in the program.

Children can be identified for the program as early as first grade. As with other exceptionalities, the placement committee is responsible for the placement of the child. In this particular program there must be a physician's recommendation that the child will benefit from the program. In addition, there must be parental permission, a psychological examination and two physical examinations.

The objectives, activities, and methods of the program are those which are stated in the State Bulletin. Among the strengths of the program identified by teachers were the cooperation received from other teachers, the materials and equipment which were readily available, and the ideal classrooms and resource rooms.

The pupils who enter the program are enrolled for a period of two years although they are released before that time if at all possible. The program is flexible so that students may be reenrolled should they require additional help.

Because this program is not provided in every school within the district, there is some transportation problem with these youngsters. It is the parent's responsibility to transport their children.

Special materials and equipment observed in the classroom included SRA kits, a wide variety of reading materials, special slanted desks, walking boards, a marstan ball, and a tape recorder.

Crippled Children

The school district has provided a program for this category of exceptionality for the past ten years, and currently one classroom is in operation in the district. The primary objective of the program is to enable these children to return to a regular classroom as soon as possible. Pupils in the program generally receive all instruction in a self-contained classroom. They do go outside of the classroom for art and music, and for other socialization experiences. The view was expressed that the ideal pupil-teacher ratio would be 8:1.

Children typically are identified during their first year of school. Generally, the parents request the special classroom placement. All background information is sent to the placement committee for their consideration in deciding upon placement. The objectives of the program, as well as the activities and methods employed, are those described in the state publication.

Children are offered services in this program through high school graduation. They are not offered vocational-technical courses. The transportation program for these pupils differs from the program for pupils enrolled in the regular program in that the district provides special buses for crippled pupils. Parts of the physical plant as well as the classroom were remodeled for this program. For example, ramps were placed in some halls, rails were placed in the classroom and in some halls, and special restroom facilities were installed. Some of the special equipment observed included an exercise bike, various sized mats, weights for wrists, ankles and muscle development, and specially designed desks.

There has been no formal evaluation of the program by the school district.

Speech and Hearing

This district has offered a speech and hearing program for many years. The speech and hearing consultant we interviewed works with 90 students in grades 1 through 6 located in five schools. However, it was thought that a case load of 60 pupils would be a more realistic load.

The objectives and activities of the program are available in published form; in fact, the published materials concerning special education programs in the district were outstanding. Teachers have contributed to the development of these materials and are very much aware of the objectives and activities to be employed in their programs.

All speech therapists have individual rooms for use in their program and most of the rooms are carpeted. Therapists have access to audiometers, tape recorders and the usual equipment for speech therapy. The teachers meet every Friday for lunch and discuss problems of common concern. Friday afternoons are reserved by the teachers for home visits.

Comment was made with regard to the excellent cooperation that exists between administration and faculty in the system.

Deaf and Hard of Hearing

The program for deaf and hard of hearing students utilizes self-contained classrooms for pre-school and primary students and for one intermediate group, while a resource program is utilized at the high school. Comment was made that the school district did not have a large enough population to group these students properly. Although the state recommends 13 pupils per classroom the belief was expressed that a ratio of 5 or 6 pupils per teacher would be much more realistic. High school pupils in the program are eligible for work study programs. Pupils who are in the work study program are placed on jobs where they are supervised, counseled and assisted by a teacher for as many as two or three years while they attend academic classes on a one-half day basis. Upon graduation the student continues in his job and work study pupils receive the same diploma as do other students.

District I

Educable Mentally Retarded

This district has operated a program for EMR children for approximately 10 years. Although the expressed philosophy of the district is to fuse the children into the regular classroom program as quickly as possible, the 10 teachers in the district function in self-contained classrooms. Students participate with regular pupils in music, art and physical education, as well as in other kinds of socialization activities. The ideal pupil-teacher ratio was thought to be 8:1. At present, the ratio in the district is 12:1.

The school district does not conduct a census for identification purposes, and children are identified during first grade. Parents or teachers may initiate action for the placement of a child into the program. Pertinent background data and the results of a psychological examination are submitted to a committee for a placement decision.

The primary objective of the program is to develop a self-supporting, well-adjusted social individual. More extensive and specific objectives are discussed in the state plan. The curriculum followed is that recommended by the state. Teachers identified what they considered to be several strong points of the program: (1) acceptance by the community for job placement of pupils in the upper grades, (2) the continuity of the program grades 1 through 12, and (3) the facilities.

The EMR pupils are offered the services of this program until they can be enrolled in the regular program or until they are placed in a job. Crafts and vocational-technical courses constitute an important part of the program. No special transportation or food services were provided.

The facility visited was a new school building. The classroom was divided into three large areas. One was devoted to crafts and art; one was for developing home skills; and the third was a "regular" classroom area. There were two teachers working with 23 upper elementary children.

The placement committee reviews each child's progress at the end of every year. This procedure, plus regional accreditation association visits every three years, was considered adequate for program evaluation.

Special Learning Disabilities

The district has operated a program for children with special learning problems for eight or nine years. During 1969-70 the district operated four classrooms for children 6-12 years of age. For pupils in the age range 13-18, resource teachers work with pupils for 2-3 periods a day, or whatever time is necessary. All children participate in regular program activities wherever possible.

The teachers in the self-contained classrooms expressed the view that an 8-10 pupil-teacher ratio would be most satisfactory; resource teachers stated they could work best with 2 or 3 pupils at one time, with a total case load of about 15 pupils.

Generally, children are selected for participation at the first grade level. A child at any age level may be referred, however. Teachers or parents may initiate action for placement. The results of a psychological examination and other pertinent information is submitted to the placement committee for consideration.

The objectives of the program are to provide confidence-building experiences for these children to carry into adult life. The state plan provides additional goals. Some desire was expressed for extending the resource concept down into the elementary grades in the near future. Teachers identified the cooperation of other faculty members and the administration as a strength of the program and feel that they are free to experiment with new ideas for difficult cases.

The children are discontinued from this program when they can effectively function in the regular class or at graduation. The entire secondary school curriculum is open to these students. The transportation and food services provided are the same as for children in the regular program.

Physically Handicapped

The district has provided a program for crippled children for approximately 10 years. Two classrooms serve as resource rooms for some children and permanent rooms for others. Children are continued in the regular program wherever they can function effectively. The belief was expressed that a pupil-teacher ratio of 4:1 would be ideal.

Generally, children are identified for the program at a pre-school orientation held in the spring which is attended by children and parents. Parents or teachers may initiate action for placement. All pertinent information is submitted to the placement committee for consideration.

The objectives and activities of the program are as stated in the state plan. Return of the pupil to the regular classroom program is the primary goal. The support of the administration, school board and other teachers; readily available materials; and ease of student placement in regular classrooms were mentioned as strengths of the program. The pupils are integrated into the regular classroom at the junior and senior high level and visit a resource aide when help is needed.

Generally, parents are responsible for providing transportation for pupils in the program. Classrooms are similar to those used in the regular program.

The evaluation of each child's progress is considered sufficient evaluation of the program. Although the classrooms were not unique, they required special tables, booths, and equipment. Two electric typewriters, tape recorders and listening stations were the major items noted.

Trainable Mentally Retarded

The district has provided a TMR program for approximately 10 years. There are five classrooms in the district, all self-contained.

The view was expressed that a 4:1 pupil-teacher ratio would be ideal, although the classroom we observed had 10 pupils.

Since there is no school district census which identifies these children, at the first grade level the placement committee reviews all available information and recommends action on placement of children. Teacher's follow the objectives and activities outlined in the state plan. Basically, the program stresses self care skills and keeping the child within the home structure as long as possible. The children may continue in the program to age 18.

The classroom we visited was located in a barracks type building with toilet facilities added. Evaluation of the program was related to the progress of each student as determined by the placement committee.

Deaf and Hard of Hearing

The program for the deaf in this district is limited to a high school program. Elementary school pupils needing this training are placed in a private school in the immediate area that specializes with work with deaf children. The district has maintained a program for deaf pupils for about 12 years. The teacher works as a resource teacher, holds a master's degree in counseling, and has worked in the program for 10 years.

The teacher works on a resource basis with pupils and regards working with their regular classroom teachers as a major part of her job. All pupils participate in the regular school program. The teacher was working with 10 pupils at the time of our visit and felt that this was a most satisfactory pupil-teacher ratio. The program clearly emphasizes an individualized instructional program, with assistance provided in any subject area where the pupil is having difficulty.

The teacher expressed the need for a full-time counselor to work with parents and teachers of deaf children. She expressed the belief that deaf children have a different educational problem than those with other handicaps and that many of the problems they face relate to the inability to fully take part in the activities of the home and the classroom. A few pupils in the deaf program matriculate into a work study program and a few go into vocational job training. It is of interest to note that the district's director of special education does not believe that special education students should receive vocational training in high school.

The resource room for the deaf occupies a regular 900 square foot classroom. Equipment in the classroom included an audio amplifier, programmed learning material, and teacher's manuals for all subjects taught in the high school. With regard to evaluation of the program, the teacher related that all but two of her pupils in the past 10 years have gone on to college or obtained gainful employment.

Speech Therapy

The district has offered a speech program for approximately 10 years. The program involves 1,435 pupils and 13½ teachers. (The teachers believed that this pupil-teacher ratio is unrealistically high.) All first grade children are screened for speech problems, and a placement committee reviews each case before assignment to the program. The program was very similar to that observed in other districts.

The district's administrative organization for special education includes an assistant superintendent in charge of instruction, a director of special services, a coordinator of special education, a consultant of special education and a coordinator of speech therapy.

Blind and Partially Blind

This program has operated in the school district for eight years. It is a resource program and is available at both elementary and high school levels. The elementary teacher we interviewed worked with 16 pupils, four of whom were totally blind. She indicated that even with an aide, this was a heavy load. In the high school program a teacher works with 11 students and has a full-time aide. The belief was expressed that 9 or 10 pupils per teacher would be a desirable pupil-teacher ratio. Emphasis was placed upon pupil's self reliance and independence in this program.

Teachers noted that the program has been able to obtain all materials needed and that they have received excellent cooperation from other teachers. Equipment in the resource room included braille writers, typewriters, and tape recorders.

District J

Trainable Mentally Retarded

The TMR program in this school district includes fifteen pupils, two teachers, and one teacher aide. The program is housed in a former rural elementary school. The building is modern and well equipped and the playground is large and well fenced. Only TMR pupils are housed at this school. The building includes two classrooms and a kitchen, and the pupils range from 5 to 17 years of age.

Supporting personnel come to the TMR center. Music and physical education are ordinarily taught by the classroom teacher with planning assistance provided by a specialist. Medical and psychological services are also provided. Teachers recognized the disadvantages associated with an entirely separate facility for TMR pupils. However, the low-pupil teacher ratio allows a large degree of individualized instruction, which is a necessity because of the wide age span in the classroom.

The teachers work both independently and as a team as the situation requires.

The services provided TMR students in this relatively small district were impressive. The facilities and equipment were very adequate, and the director of special education provides adequate supervision of these programs. The director knows his teachers, knows what is going on in the classroom, and is primarily responsible for the development of this program in the district.

Emotionally Disturbed

Classes for emotionally disturbed students are relatively new in this school district. This is the second year of operation for this program. This class is also referred to as the "individual interest" class in junior high school. It was indicated that the program involves more than emotional problems of pupils. The teacher we interviewed worked with 17 pupils in grades 1 through 4 who had been referred by other teachers and by the school psychologist. Problems ranged from reading difficulties to problems of a disciplinary nature.

Pupils in the program do not receive all of their instruction in a self-contained classroom. The teacher works as a resource teacher, developing an individual study program for each pupil. Pupils spend varying amounts of time in this program and return to the regular classroom when the school psychologist and the teacher of the emotionally disturbed believe that they can function in the regular classroom.

The classroom we observed was carpeted but smaller than ordinary classrooms. The teacher indicated that she worked with no more than three or four pupils at a time. Equipment and materials observed in the classroom included controlled readers, audio flash cards, tape recorders, and developmental learning materials.

Speech Therapy

The district has provided a speech therapy program for nine years. The program involves approximately 270 students and four teachers. This pupil-teacher ratio was strongly endorsed by the speech therapists. All second and ninth grade pupils in the district are screened for speech problems.

Facilities are unusually good. All classrooms are carpeted, and the room we visited was 12 by 22 feet in size. The equipment available included an audiometer and the audio flash card system. Outstanding features of this program were identified as the continuity achieved under the able direction of the director of special services and the excellent facilities provided for speech therapy.

Educable Mentally Retarded

The school district has provided a program for educable mentally retarded children for several years. The program is housed in a junior high school. Two EMR classrooms are provided at this location. Instruction in physical education and industrial arts is provided. The Association for Retarded Children provides money for parties, trips and other items.

The idealized pupil-teacher ratio for this program was perceived as 12:1, which conforms to that which was observed. It was further idealized that one teacher aide should be available.

Children are identified for this program through reports by teachers followed by psychological testing. A child may be disengaged from the program through an evaluation by the director of special programs.

Special Learning Disorders

The school district has provided for learning disabilities for two years. One classroom is provided to accommodate approximately 15 students. The program serves the entire school district. The students do not receive instruction in a special self-contained classroom.

A small workroom is provided in an elementary school in which one teacher is housed. This teacher provides itinerant services on an individual basis for children who are recommended by their teachers. It was difficult to identify how this program differed from any other program, except that the teacher did provide individualized instruction; and the instruction seemed to be directed toward the development of specific skills by the individual child.

District K

Special Learning Disabilities

The school district has provided a program for this exceptionality since 1965. There are a total of seven classes in the school system which provide instruction for children in this exceptional program. Those classes consist primarily of pupils whose academic performance is not commensurate with their ability. When pupils first enter the program they receive a considerable portion of their instruction in a self-contained classroom, but as they progress through the program they are gradually phased into the regular classroom. The degree of integration depends upon the progress of the child. The idealized pupil-teacher ratio for a program of this type was thought to be ten pupils per teacher. The earliest grade level at which children can receive instruction in this program is first grade.

The criteria and process for selection of children to participate in the program is rather unique and extensive. The first step is for the homeroom teacher to identify problem children by observing them in the educational setting. The teacher looks for children exhibiting high tension, emotional instability, and low performance in reading. The homeroom teacher then refers the child to the psychologist who administers a series of tests among which are the Wechsler, WISC, and the Bender Gestalt. If the pupil with some or all of the above characteristics exhibits average to above average ability, he is placed in a special learning disability class. Those which exhibit below average ability are placed in

EMR programs. The final decision in the placement process is made by the program director.

The objectives of the program include placing students back into the regular classroom, giving them self-confidence, and teaching them to work independently. Staff members perceived the major strengths of this program to be the emphasis placed on reading improvement and the availability of a well balanced program. Two privately operated programs also are available for children with this exceptionality in the district. When building new facilities for programs of this type, about 90 square feet of space per student would be preferred for instructional space. The pupils are evaluated through the use of teacher made and standardized tests. New approaches are constantly being used in the evaluation process.

Emotionally Disturbed

The school district has provided a program for this exceptionality since 1967. There are approximately 30 classrooms providing emotionally disturbed children with special education in the system. Children enrolled in these classes do not receive all of their instruction in a self-contained classroom. Most children spend about one hour per day in the special class and are in the regular program the balance of the day. The teacher deals with a group of approximately four or five students at one time. The earliest level that children are placed in this program is at the second grade.

One method used to select children for this program is an observation evaluation by the teacher in the classroom situation. The teacher looks for such characteristics as hyperactivity, discipline problems, and a generally disruptive attitude. In addition, a psychological test is used as a criterion to place these children in the program.

The objectives of this program are to change the pupil's attitude and behavior through a reward system, to change and improve the pupil's work habits, and to improve the pupil's ability to work with other children. The major strengths of this program were perceived to be a very satisfactory pupil teacher ratio and a good working relationship with regular teachers. Pupils are provided instruction in this program through the sixth grade. All pupils are given the opportunity to take vocational-technical courses in grades seven through twelve. A minimum of 100 square feet per pupil is recommended when constructing or remodeling facilities for this program.

The program and pupils are evaluated regularly. Evaluation of pupils is facilitated through use of a standardized evaluation form, in addition to the district evaluation forms. The teachers in this program correspond and communicate throughout the year and meet as a group regularly to evaluate the program.

Auditorily Impaired

The district has provided a program for this exceptionality since 1946. There are approximately 26 classrooms of children being served by this exceptional program.

The children in this program receive most but not all of their instruction in self contained classrooms. A team teaching system is used in which subjects such as music, art, and physical education are provided outside the classroom. The idealized pupil-teacher ratio for this program was eight pupils per teacher. The earliest grade level for which children can receive instruction in this program is kindergarten.

Children are placed in this program upon recommendation of an audiologist. The major objectives of this program include an understanding of speech and language, the ability to communicate with others, and the attainment of knowledge and skills accumulated by other children of the same age. The main strengths of this program were perceived to be a well trained staff, the homogeneous grouping of pupils with impaired hearing, and equivalent learning rate standards for pupils in the program. A child is no longer provided the services of this program after the twelfth grade. Comprehensive vocational-technical courses are offered at the high school level for children in this exceptional program. The belief was expressed that, when building new buildings or remodeling old buildings, a minimum of 90 square feet per pupil is desirable for this program.

Pupils are evaluated through the use of regular grade cards and through written teacher comments on the progress of each child. The special materials or equipment observed in the classroom included a wireless auditory amplifier and a wireless auditory trainer. In addition to the regular teacher, one junior high school student aide was available to assist in classroom activities.

Visually Impaired

The school district has offered a program for this exceptionality since 1946. The district has a total of nine classrooms which provide education for children with this problem. One outside agency which provides services in the National Council of Jewish Women which volunteers aid and provides each classroom with a braille bindery.

The pupils in this program are integrated with regular classroom learning activities such as mathematics, spelling, physical education, etc. Seven pupils per teacher was viewed as being the ideal pupil-teacher ratio for children with this handicap. The earliest grade level at which children can receive the services of this program is kindergarten and the program extends through grade 12. The specific criterion used to identify children for this classroom is 20/70 vision in one eye. The objectives of the classroom activities are independence of action, preparation for junior high school, and preparation for living in a sighted society. Vocational-technical courses are offered to visually impaired students at the senior high school level. Special transportation is provided for pupils who are in special programs. Special busses pick up students in exceptional programs at home and return them home after each day's school activities. The opinion was expressed that approximately 80 square feet per student should be provided for students in this program.

The program is evaluated in much the same way as other special education programs in this district. A yearly evaluation includes teachers, principals, and other specialists.

Among the special materials or equipment observed in the classroom were braille materials (approximately 200 books), large print books, mobility canes, and several magnifiers. In addition to the teacher, a volunteer worker from the Council of Jewish Women was assisting with classroom activities.

Speech and Hearing

The district has offered a program for this exceptionality for 22 years. There are approximately 200 schools with classrooms which serve children in this exceptional program. Special agencies outside of the school district which provide assistance for children with speech and hearing difficulties included the Conservation of Hearing Clinic and a Voice Clinic located at a local hospital. These agencies provide speech and hearing evaluation through the facilities of the County Health Association and a local university. In addition, the Cleft Palate Organization, also located at the hospital, provides evaluation services.

Pupils in this program receive very little of their instruction in a special classroom. In fact, most of the educational activity occurs in the regular classroom. The ideal pupil-teacher ratio for a program of this type was judged to be 75 pupils per teacher with three or four sections of pupils per day as a minimum. The earliest level at which children are identified and admitted to this program is at the first grade, but students can only receive instruction this early through teacher referral. The regular screening process is fully operative at the third grade level. One criterion used to identify children for participation in this program is a screening test at the third grade level in which children are asked to speak from an international phonetic device. They are then given a rescreening test and a picture interpretation test. The objectives of this program are speech intelligibility and language development.

There are privately operated programs for children with this exceptionality in the school district. Some university facilities are available and free. The United Fund also operates a few speech clinics for those who cannot afford privately operated programs.

The services of this program are available to children in the district through grade twelve. Vocational-technical courses are offered in grades nine through twelve for children with this handicap. The belief was expressed that 100 square feet per student is adequate when planning new construction or remodeling existing facilities for this program. The children in the program are evaluated through a phonetic analysis process. The special materials or equipment observed in the classroom include a regular mirror, tape recorders, an audiometer, audio-trainers, and a phonic mirror.

Trainable Mentally Retarded

The district has offered a program for this category of exceptionality since 1949. Some services are provided by agencies outside the school district; for example, the Parent Teacher Association and the Lions Club provide some equipment for classrooms.

Children enrolled in the trainable mentally retarded program attend school on a half day basis. They do not spend all of their time in self-contained classrooms. During the week the children spend approximately 30 minutes per day in physical education and 30 minutes per week in music and in art. The idealized pupil-teacher ratio for this program was thought to be seven pupils per teacher. The earliest grade level at which children are identified for participation in the program is kindergarten.

Procedures used for selection of children in this program are similar to those used in other programs. In addition, Stanford-Binet and Wechsler tests are administered by a psychologist. Those pupils who score below 50 on these tests are referred to the program director for final placement in the TMR program.

The most important objectives of this program are to help the child adjust to the outside world and to make the child self sufficient. The child is not offered the services of this program beyond the eighth grade. Beyond the eighth grade, vocational-technical courses are offered in the high school in the form of sheltered workshops.

Pupils enrolled in this program are transported directly from home to school. The belief was expressed that in planning new facilities for this program, approximately 90 square feet of space per student should be provided. Special materials or equipment observed in the classroom included a language master, a tape recorder, a film projector, and a Peabody Kit.

Pupils in the program are evaluated with the aid of charts and periodic reports to the program director. The program is evaluated through teacher assessment and discussion with other TMR teachers and the program director.

Educable Mentally Retarded

The school district has offered a program for this exceptionality since 1949. There are now approximately 200 classrooms offering the services of this program to children in the district.

Pupils do not spend all of their time in a self-contained classroom. The amount of time varies with each pupil in regard to the instruction received in the regular classroom and that received in a special classroom. The range is from one to four and a half hours in the special classroom, with the balance of the time allotted to regular classroom activities. The most satisfactory pupil-teacher ratio was thought to be approximately 12 pupils per teacher, although this depends somewhat on the grade level and type of pupil.

The earliest grade level at which children are identified for this program is first grade. The procedures followed in the selection of children for participation in the program are as follows: the teacher refers the pupil on the basis of classroom observation; a psychologist then administers a number of tests including the WISC, Peabody, and the I.T.E.A.; children could also go through the Reading Service facility and the Children's Evaluation Center before they are placed in this program. Generally an I.Q. level of 50 to 75 is required for placement in the EMR program. The major objectives for this program at the elementary level are social adjustment within the community and the ability to work with other people. Beyond the elementary level additional objectives include the development of a knowledge base in reading and math skills.

The child is not offered services through this program beyond the twelfth grade. The general pattern for children beyond the elementary grades is entry into work experience programs offered at the high school level.

The physical plant we observed was designed especially to house this program. The opinion was expressed that, when planning new facilities, approximately 90 square feet per student should be allotted.

The program is evaluated yearly by the teacher, principal, program director, and district director acting in concert. A special evaluation form is used for the evaluation of each student.

Orthopedic and Multiple Handicapped

The school district has offered a program for this category of exceptionality since 1949. There are approximately 20 classrooms in the district which serve children in this exceptional program. Agencies outside the school district which provide services to these children include the Crippled Children's Organization, the Variety Children's Hospital, and the Cerebral Palsy Clinic.

Most of the children in this program receive all their instruction in a self-contained classroom. However, some pupils are allowed to join regular classroom groups if they are able to do so. The idealized pupil-teacher ratio for a program of this nature was thought to be seven pupils per teacher, and it was felt that the program should have the following support personnel: a teacher's aide, a physical therapist and an occupational therapist.

The earliest grade level at which children are identified for this program is kindergarten. Among the procedures used to select children for participation in this program are a physician's recommendation, teacher recommendation based on classroom observation, and the program director's analysis and recommendation.

The major objectives of the program are to prepare pupils to participate in the regular school program, to help them become socially adjusted, and to prepare the child for physical self-sufficiency. The child is not offered services beyond the twelfth grade. Vocational-technical courses are provided for pupils in the high school and Good Will Industries outside the high school. The transportation program differs from the regular program in that special busses take students directly from home to school. In addition the busses are equipped with a special door and lift for accommodating students with mobility difficulties. The physical plant observed was constructed especially to house this program. The building was designed for special education classes, and rooms are all approximately three-fourths the size of regular classrooms. It was stated that 150 square feet per student should be provided when planning new facilities. Special materials and equipment observed in the classroom included a listening station, physical manipulative toys, electric typewriter, roller chairs, wheel chairs, crutches, and several raised tables.

Approximately 90 percent of the evaluation of pupils is subjective, and the pupil is evaluated primarily on self-confidence and social adjustment.

District L

Educable Mentally Retarded

This district has provided a program for educable mentally retarded children for many years. The pupils receive all of their instruction in a self-contained classroom. The idealized pupil-teacher ratio was thought to be 12 pupils per teacher, assuming that a teaching aide would be available from three to five hours per week.

Objectives of the program are adequate social adjustment, personal health and academic growth of the pupil. Concrete learning activities using a variety of audio visual materials are employed.

An extensive screening process corresponds to the process mandated by state law. The screening committee, which must be composed of a physician, psychologist, teacher, and administrator, reviews the application and placement of all children in any exceptional program. The state law further mandates that each child's case be reviewed each year and the child either continues in a given program or terminates and returns to the regular program. Transportation is provided for all children involved in the program.

The classroom we observed was remodeled to accommodate this particular program. The classroom was carpeted; equipment was available for cooking classes; and special lighting was provided. Also, the building provides an observation booth between two classrooms which is used by teachers, student teachers, administrators, and parents of children engaged in the particular program to observe the instruction and activities provided for the children in this program.

An individual yearly evaluation of each pupil made by the teacher relative to the pupil's academic progress and a psychologist's evaluation of the pupil are submitted to a review committee. Program assistance is provided by students from upper grades who act as tutors twice per week for a one hour stint. Special materials and equipment observed in the classroom included a kiln, stove, refrigerator, cooking facilities, and shop equipment.

Special Learning Disorders

The district has provided a program for the educationally handicapped child for several years. In general, the program operates on an itinerant basis with a resource teacher working with the child for one to two hours per day. The earliest grade level at which children are identified for this program is kindergarten. A teacher identifies children needing the services of this program and makes the recommendation that a child undergo a psychological evaluation. Following the psychological evaluation and a parental conference, an application is submitted through the district placement committee for placement into the program. The individualized instruction and programmed behavioral objectives that were identified by the teacher we observed would probably serve as an excellent model for individualized instruction.

The strengths of the program rest with the teacher and the individualization of instruction. The teacher also acts as a resource person for other teachers who have an interest in providing individualized instruction for some of their regular educational activities.

Children are given instruction on an individualized basis although there may be two children in the room at one time. Much of the room is utilized for curriculum material developed in the program. The materials observed were excellent.

Either the regular teacher or the special teacher may recommend re-evaluation to initiate a transfer back into the regular program. All children's cases are reviewed periodically, at which time a psychological evaluation is provided and a recommendation made to the screening committee relative to placing the child back into the regular program.

Although no special materials were observed in the classroom, the quality of materials there were excellent. Special equipment in the room included audiological equipment. The chronological age of the children engaged in the program ranged from six to eight years. They currently are enrolled in grades one through three.

Speech Handicapped

The school district has provided a speech therapy program for many years. All speech therapists have individual rooms which are very well equipped. The district also owns a mobile speech lab which is used by all therapists and school nurses in identification of speech problems. Some speech therapists work with as many as 90 pupils, meeting with each pupil once per week. (The State Department of Education recommends that a speech therapist see a maximum of 90 students per week, on a once per week basis.) Speech therapists in the district idealized the pupil-teacher ratio to be 50:1 and believed that children should be seen two or three times a week.

Children are selected for participation in this program upon referral of a teacher or a school nurse. The therapists, however, have the final say as to who enters into the program.

The strengths of the program were identified as the quality of the staff employed, the excellent facilities provided, and availability of needed supplies and equipment. The mobile speech lab was also pointed out as being unique equipment for a speech therapy program.

The speech therapists indicated that they believed they were specially selected for their position and that they had nearly ideal working conditions. It was apparent that this feeling of prestige and satisfaction with their status contributed highly to the effectiveness of the speech therapy program in this school district.

Educationally Handicapped

The school district has provided a program for the educationally handicapped for three years. The primary and intermediate classes are held in self-contained classrooms. Junior and senior high school programs are resource programs. Students are referred to a screening committee after recommendation by the classroom teacher and the teacher of the educationally handicapped. The teacher of the educationally handicapped goes to the child's regular classroom to observe his behavior. Once a child has been assigned to the program the teacher of the educationally handicapped acts as a resource person for all of the teachers involved with the child.

A 12:1 pupil-teacher ratio is the maximum recommended by the state Education Department. A teacher aide assisted the regular teacher in the classroom we observed. One strength of the program was identified as being the inservice training which the district provides for special education teachers. The inservice program involves sensitivity training and teacher effectiveness studies. Another strength of the program mentioned by the teacher was the psychological services provided students in the educationally handicapped program. One psychologist in the district serves four schools, so that there is no waiting for testing of a student admitted to the program.

Teachers of the educationally handicapped meet once a month after school for a business meeting to hear a speaker. These meetings are not mandatory but few absences occur.

The classroom we observed was carpeted and contained a typewriter, an overhead projector, a tape recorder with earphones, and the usual furniture found in an elementary school classroom. The teacher indicated the prime objective of the program was to discover and remedy the root of the child's educational development problem.

DISTRICT M

Auditorily Handicapped

The program for auditorily handicapped children has existed in this school district for over 40 years. Historically, parent groups have been prominent in their efforts to enhance the program by providing financial assistance, which was cited as one reason for the strength of the program. Pupils in the program take art, music, and physical education with regular classes and participate in the school lunch program with the regular student body. A pupil-teacher ratio of 6:1 was perceived as the most satisfactory arrangement, and it was perceived that the addition of a teacher aide would greatly enhance the program. The district also maintains one self-contained classroom in which auditorily handicapped children are taught using the sign and finger spelling method.

A school district census is taken annually, and the census takers inquire whether there are children in the household who may need special educational services. Pupils are selected for participation in this program on the basis of a medical examination and must meet the criterion for hearing loss stipulated by the state.

Pre-kindergarten is the earliest that children are identified for this program. Children who fail to respond to the oral method may be transferred to the classroom in which the sign and finger spelling method is employed. Objectives of the program include building the pupil's communicative skills and providing the deaf or hard of hearing child with an understanding of the real world environment.

Speech Handicapped

The district has operated a program for speech handicapped children for approximately 50 years. Children in this program receive special supplementary help while attending regular classes. The opinion was expressed that the most satisfactory itinerant teacher case load is 70 pupils – in some cases it should be less depending upon the severity of the problems.

Regular census takers inquire whether there are children in a family who may have speech problems, but the earliest that children are identified systematically for the program is in kindergarten. All kindergarten pupils are screened by a speech therapist, and a rescreening is given each year to those pupils who exhibit speech problems.

The belief was expressed that the major strength of the program lies in the intensive instruction cycle that provides four continuous days of treatment for the pupil – amounting to about 15 to 20 minutes per day or one hour per week. Intensive cycling was said to be especially good for voice, stuttering, or articulation defects. The program is evaluated primarily by the individual speech teachers using follow-up studies and case studies.

Physically Handicapped

This school district has maintained a program for physically handicapped children for over 15 years. Five classrooms of children (plus a number of outpatients) are served by this program. Most of the pupils receive their instruction in a self-contained classroom; although whenever possible, they attend regular classes. The opinion was expressed that the most satisfactory pupil-teacher ratio is 12:1.

The earliest that children are identified for participation in the program is pre-kindergarten. A recommendation from a physician and from a psychologist are among the criteria employed in the selection of children for this program. The program terminates at grade eight. The strengths cited for the program were well qualified teachers, strong administrative support, and excellent equipment.

A special bus provides transportation for children who are confined to wheelchairs. The classroom, including special restrooms, ramps, elevator, and handbars, was remodeled specifically for this program. Special equipment and materials observed included a language master, a tape recorder, beds, a movie projector, book stands, typewriters, and prism glasses.

The children are evaluated by teacher observation and by tests. This program had the following grouping pattern: (1) two rooms of multiple handicapped children, and (2) two rooms of regular (not mentally retarded) orthopedically handicapped children.

Educable Mentally Retarded

This school district has provided a program for this category of exceptionality since 1911. Most of the elementary classrooms are located in one building. Some classes are self contained; others provide opportunities for EMR pupils to join with pupils in regular classrooms. The ideal pupil-teacher ratio was perceived to be 12:1. At the high school level, classes are provided in the regular high school buildings. Separate junior and senior high school classes are maintained although the classes do combine occasionally for common learning experiences. A pupil-teacher ratio of 14:1 was thought to be satisfactory at the high school level.

Generally, the earliest that children are identified is in the kindergarten year. Teacher recommendations play a major role in identifying children for placement into the EMR program. Criteria for admission to the program are in keeping with the traditional selection procedures. I.Q. scores of 50 to 80, as determined by the WISC or the WPPSI, are used as determinants for pupil placement.

There is a great deal of emphasis on vocational-technical courses at the high school level. All vocational, technical, and industrial arts courses offered in the regular school program are open to EMR pupils who can cope successfully with the challenges of the course. Most of the pupils graduate at age 18 and receive a special diploma. After graduation, many pupils enter sheltered workshops although a few are employed in private industry or business firms.

The variety of materials available, the support personnel available, and the district-wide, inservice program for EMR teachers were cited as strengths of the program, as was the vocational emphasis at the high school level. Special transportation is provided only for those pupils who reside in an attendance area other than that where the program is located. The food service program differs only in that children transported from other attendance centers are provided a hot lunch.

The program is evaluated through achievement tests which are given in the fall and in the spring. The district-wide inservice program for EMR teachers is directed toward evaluation of the total program. Several in-building, round table discussions directed toward program evaluation also are held.

Trainable Mentally Retarded

The school district has provided a program for trainable mentally retarded children for several years and currently serves approximately seven classrooms of children. The school day is normally broken into a half-day in a self-contained classroom and a half-day in various other activities such as cooking, sewing, industrial arts, and physical education. A private fund provides approximately $35 per classroom to finance field trips of an educational nature. The program is housed in a facility used mainly for handicapped children. The idealized pupil-teacher ratio was identified as not more than 10:1.

Children are identified for participation in the program through reports from physicians and through psychiatric evaluations. The earliest that children are identified systematically for this program is during the kindergarten year. The primary strength of the program was identified as the half-day departmentalized organization. Vocational-technical classes are not available to children in the TMR program.

Transportation is provided for each child. The program differs from the regular program in that each child is provided a daily hot lunch.

No formal evaluation procedure was identified although parent-teacher conferences are held periodically.

Special Learning Disabilities

The district initiated this program about four years ago. The program is concerned primarily with language disabilities which may have their basis in emotional, perceptual, or motor disorders. Children suspected of having learning disabilities are tested by a school psychologist using such instruments as the WISC, WPPSI, Bender, etc. The basic criterion for admission to the program is a differential of at least 20 points between ability and performance scores on these instruments.

The primary objective of the program is to enable pupils to function adequately in a regular classroom situation. Central office personnel provided supportive services to the special class teacher who also receives assistance from a speech therapist and from a special teacher who works with the child on motor development. The idealized pupil-teacher ratio was perceived to be 6:1. Early identification, individualized pupil programs, provision for remedial work, and the teaching of compensatory skills were cited as strengths of the program.

The program serves children of primary school age, and the maximum length of time a pupil is retained in the program is three years. Pupils in this program occasionally interchange with pupils in the program for the emotionally disturbed because of the similarity in the two programs.

Neurologically Handicapped

The school district has operated a program for neurologically handicapped pupils for seven years. The program is housed in a neurological hospital; the instruction is tutorial in approach. The most satisfactory pupil-teacher ratio was viewed as one pupil per teacher. This is a unique program – both because of its location and because of the numerous supporting personnel who are available to assist with the program.

Most of the children in the program are identified prior to kindergarten by a state agency. The criteria used to select children include a physical examination and an age level set by state requirements.

The strengths of the program were identified as the team approach which is used, a low pupil-teacher ratio, excellent supplies and equipment, and well qualified personnel. Occupational therapists provide vocational courses for pupils in this program. At the termination of the child's hospitalization, a written report is sent to the supervisor of the program and to the child's school.

There are two types of pupils in the program. One is the traumatic case where the child was mobile prior to an accident; the other is the birth injury case where the child never has been mobile. The latter case may or may not have accompanying cerebral damage.

Multiple Handicapped

The school district has operated a program for multiple handicapped pupils for about 30 years. During the 1969-70 school year, two classrooms – one primary and one intermediate – served children in this program. Pupils receive all their instruction in a self-contained classroom with the exception of physical education, art, music, and library. Five to ten pupils per teacher were identified as a satisfactory pupil-teacher ratio depending upon the nature of the pupils.

Kindergarten is the earliest level at which children are identified for participation in this program. Recommendations from a physician and from a psychologist are required for placement in the program.

The strengths of the program which were cited were well qualified teachers, realistic program goals, and excellent equipment. Academic progress determines the length of time that the pupil is in the program, and some pupils are able to transfer to the regular program. There is no specific time in the child's development when his participation in the program is terminated.

Transportation is provided for all multiple handicapped pupils. The food service differs from the regular program in that hot lunches are provided daily for each child enrolled in the program. The classrooms were remodeled especially for this program and were larger than the usual classroom. Unique features included special restrooms, ramps, handrails, and an elevator.

The program evaluation process consists of teacher observation and standardized tests.

Visually Handicapped

The school district has provided a program for the partially sighted since 1936 and a program for the totally blind since 1955. Several outside agencies also provide funds and services for the program. The teachers generally serve as resource persons for pupils and for other teachers. They transcribe the regular classroom materials to large print or to braille. The program is quite flexible in that children move in and out of their regular classroom as the need arises. In the case of partially sighted pupils, the idealized pupil-teacher ratio was 10:1. A pupil-teacher ratio of 7:1 was thought to be the ideal for blind pupils.

The school district census provides for the identification of these children, but its effectiveness in identifying such children was questioned. Nearly all children are identified for the program prior to entering school and receive special help immediately upon entering school. Generally, children are referred by parents, a physician's recommendation is obtained, and approval by the school district and the state is secured.

Blind children enrolled in the program are able to take home economics and typing. Partially sighted children may take home economics, typing, and industrial arts. Strengths of the program which were cited included the cooperation of administrators and other teachers and the availability of instructional equipment and materials.

Since this program is provided in only one school within the district, the school district provides special transportation for the children in the program using cabs, buses, and special vans. Pupils in the regular program within this attendance center either go home for lunch or bring bag lunches; pupils in this program receive a hot lunch.

Among the special equipment and material observed in the classroom for partially sighted pupils were an overhead projector, a tape recorder, an audio flash card system, study carrels, talking book machines, large magnifiers, and primary typewriters. Special materials and/or equipment observed in the classroom for blind pupils included braille writers, typewriters, two tape recorders, a record player with several ear phones, a wide variety of records, volumes of books in braille, special desks, textured globes, a braille dictionary, and braille encyclopedias. The ages of the children in the partially sighted program varied from 6 to 15. In the blind program, the ages of children varied from 3 to 16.

Emotionally Disturbed

The school district has provided a program for emotionally disturbed pupils for several years. Pupils involved in the program at the elementary level received services on a half-time or need basis. The ideal pupil-teacher ratio was thought to be 6:1. Academic subjects are approached through behavior modification, role playing, and activity therapy; and the pupils pursue the regular curriculum. The goal of the program is to return the pupil to the classroom on a full-time basis.

The earliest that children are identified for this program is kindergarten. They may be recommended for the program by parents or teachers. A psychologist's evaluation and recommendation is also a part of the selection process. Children may continue in the program until they are able to return to the regular program or until they graduate from high school.

At the high school level, pupils are scheduled into the program for a two-hour block of time. They also may return to the special teacher for small group and individual help. Most pupils in the program either are delinquent or have been involved with drug usage. A pupil-teacher ratio of about 15:1 was viewed as satisfactory depending upon the make-up of the group. Criteria used for selection of program participants include teacher recommendations, a complete battery of tests; and the pupil must have an I.Q. level that is at least in the average range.

Pupils who live beyond the attendance area of the school where the program is housed are provided transportation and also receive a hot lunch at noon. Standard classrooms are utilized.

Evaluation of the program is accomplished primarily by evaluation of the progress of pupils.

District N

Educable Mentally Retarded

This district has maintained a program for EMR pupils for 14 years. During the 1969-70 school year 24 teachers – 2 primary, 9 intermediate, 5 junior high and 8 secondary – served 362 pupils. A special school is operated for EMR pupils and has three specific locations for a work-study program. They are: (1) the school, (2) on-campus and (3) off-campus. The idealized teacher-pupil ratio was viewed as 12 pupils per teacher at the primary level, 15 pupils at the intermediate level and 18 pupils at the secondary level. The primary objectives of the program are job placement and social adjustment.

The district does not take a school census to identify children needing special services. Thus, the earliest grade-level that children are identified for the program is grade one. Each child must have a psychological evaluation before placement in the program. A California Achievement Test is given to every incoming student, and a test is administered at a later date to determine progress made by the pupil. During the 10th or 11th grade, the Movney Problem Check List Test is administered to identify problem areas.

Specific vocational-technical courses offered EMR pupils include cosmotology, building trades, and nursing (County Hospital).

A bus provides transportation for the work-study pupils. Since there are two shifts, the bus operates all day. Hot lunches for pupils are prepared at the junior high school. Requests for lunch for pupils must be phoned in and are delivered.

The physical plant we observed was not constructed especially to house the program. In planning new construction, 860 square feet per classroom was viewed as the minimum for elementary, and 1,000 square feet is the minimum for junior high.

In evaluating pupils, three types of tests are administered: (1) California Achievement, (2) Movney Problem Check List, and (3) Kuder Preference. The opinion was expressed that the evaluation process could be improved if definite guidelines were established.

Trainable Mentally Retarded

The district has operated a program for trainable mentally retarded children for 16 years. The program employs 7 teachers who work with 73 children. The County Association for Retarded Children provides the salary for two teachers at a cost to the association of $13,000 per year. Four student aides from the EMR center are provided – two in the morning and two in the afternoon. Agencies other than the school district which provide specific services are the County Association for Retarded Children, the United Church Woman's Guild (which provides volunteers to help the program), and service organizations which provide money gifts.

All pupils are housed in one building which was built specifically to house the TMR program. The school building originally was constructed by the County Association for Retarded Children, and the School Board provided a teaching principal. Since that time the School Board has added one room to the school building and provides six instructional units and three portable classrooms. The idealized pupil-teacher ratio was eight pupils per teacher for the primary level and ten or eleven pupils at the intermediate level. The earliest grade level at which children are identified for this program is pre-kindergarten (4 years old). Children are referred to the program by parents and by physicians. A doctor's evaluation and committee recommendation are necessary for placement in this program.

The primary objectives of the TMR program are to develop the child's social adjustment, self care, vocational skills, physical training, and language development. At the time of our visit the staff was involved in writing the behavioral objectives.

The TMR pupil is no longer offered services by the district beyond age 16. The transportation program for TMR's is the same as for pupils in the regular program. For new classrooms at least 80 square feet of space per pupil was recommended.

Speech Handicapped

The district has provided a program for speech handicapped children for over twenty years. Four speech therapists have a combined load of 293 pupils, and one academic assistant for speech improvement has 188 pupils. Children in this program receive special supplementary help from the itinerant speech therapists.

The earliest grade level at which children are identified for participation in the program is third grade. The criteria used to select children for this program are: (1) severity of the communication problem, (2) availability of the therapist's time, (3) characteristics of the pupils being considered, (4) developmental patterns of speech, (5) schedules within the school, (6) physical facilities, and (7) therapist's judgement.

The program objectives are to identify pupils with possible hearing problems; to identify pupils having speech performance and/or language development problems; and to provide a therapeutic program for previously identified pupils with speech and/or hearing related problems. Evaluation of pupil progress is by observation of the pupil's performance by the therapist.

Program activities begin when the academic assistant, with the assistance of therapists, schedules and conducts mass hearing acuity screening programs in the first, third, and seventh grades and in special education classes. Students who fail to meet established criteria are referred to the therapists for further testing.

In planning new facilities it was recommended that 700 square feet be provided for an elementary reading and itinerant room, and 770 square feet be provided for a junior high room. The program currently makes use of a mobile unit.

Physically handicapped/Emotionally Disturbed

The district has maintained a program for the physically handicapped emotionally disturbed child for 22 years. There is one classroom of 11 children who are classified as deaf (1), emotionally disturbed (7), and physically handicapped (3). Several community agencies provide specific assistance to this program. For example, a local race track donates one day's receipts each year specifically for this program. Other organizations which provide assistance include the Lions Club, Kiwanis Club, Lion's Auxillary, Elks, Sheriff's Posse, sororities, and churches.

Pupils receive all of their instruction in a self-contained classroom. The most satisfactory teacher-pupil ratio was viewed as 10 pupils per teacher.

Since the school district does not conduct a yearly census, the earliest grade level at which children are identified for this program is the first grade.

The results of a psychological examination is the primary criterion for placement in this program. The psychologist's recommendations are referred to the admission's committee for final action.

The primary objectives of the program are to enable the pupil to return to the regular program and to prepare him to become a useful adult in the community. The pupils are involved in 30-40 field trips each year. After the completion of sixth grade, pupils are no longer continued in this special program.

A unique transportation arrangement is provided for the program. Two pupils are transported by taxi from another elementary school with the cost of the transportation being paid with money provided by the donated race track receipts.

A classroom complex was remodeled especially for this program. Three connecting classrooms having approximately 4,000 square feet of space comprise the building housing this program. One classroom is the study-classroom; one is the audio-visual room; and one is the handicraft room. The "race track fund" provided money for construction of part of the building.

The major classroom equipment consisted of 1 sewing machine, 4 typewriters, 1 super 8mm Loop Machine and 15 loops, 5 ukuleles, and 10 hammers and saws. In addition to the teacher, there was a teacher aide serving ten pupils who ranged in age from 8 to 13 years. The cost to the district for the program are the salaries paid the teacher and teacher aid and $700 for supplies. All other costs are covered by donated funds.

Pre-School Deaf

The school district initiated a program for the pre-school deaf during the 1969-70 school year. There was one classroom with five children enrolled in the morning and four children enrolled in the afternoon. All of the pupils in the program receive their instruction in a self-contained classroom. The idealized pupil-teacher ratio was 5:1. The earliest that children are identified and enrolled in the program is at age three. The children are selected for the program on the basis of a parental request, a physician's referral, audiological tests, and the placement committee's recommendation. Children will be dismissed from this program at age six.

The parents must transport the children involved in the program. The pupils attend school for three hours (either morning or afternoon). Neither the physical plant nor the classroom were remodeled specifically for this program.

Emotionally Disturbed

The district initiated a program for the emotionally disturbed during the past school year, and currently there is one classroom of such children in the program. Three children spend their full time in a self-contained classroom; approximately 30 more children meet with the teacher on the basis of their need. These children are in the classroom for varying periods of time, the longest period being two hours. The idealized pupil-teacher ratio in a self-contained classroom was 6 to 1 and a case load of 15 thought to be reasonable under a resource room approach.

Pupils generally are identified for participation in the program at the first grade level. The teacher employs various behavior modification techniques although the physical facilities limit the activities which can take place.

The present classroom is shared with a small orthopedic class and was not designed to meet the needs of the program. The pupils are dismissed from the group when they can return to their regular classroom and function effectively. There is no program presently available for pupils after grade six.

Special materials and equipment which were observed in the classroom included language masters, tape recorder, listening station earphones, primary typewriter, primary science kit, and a wide variety of games.

Crippled Children

The district has provided a program for this exceptionality for one year. The program currently serves one classroom of children. The pupils receive all of their instruction in a self-contained classroom. The idealized pupil-teacher ratio was 4:1.

Children are identified for the program at the first grade level. Currently, the program extends through grade six. Transportation must be provided by the parents of children enrolled in this program. Neither the physical plant nor the classroom were designed specifically for the program.

Learning Disabilities

The school district has provided a learning diabilities program for one year. Three resource rooms are provided to serve the children enrolled in this program. The pupils in this program do not receive all of their instruction in a self-contained classroom. Rather, they are scheduled on the basis of need. On the average, they spend about 30 minutes each day in the resource room. Essentially a one-to-one relationship with the teacher is maintained.

The earliest level at which children are identified for participation in this program is grade one. At present the program extends only through grade six. However, if pupils are able to function in a regular classroom prior to that time, they are so placed.

Neither the physical plant nor the classrooms were remodeled or designed especially for this program. Among the special materials and equipment observed in the classroom were a tape recorder, language masters, typewriters, a Peabody kit, isolation screens, and a wide variety of visual perception materials.

District O

Minimal Brain Injured

For the past 13 years this school district has been providing a program for children of normal intelligence who were not achieving up to grade level or up to teacher expectations. These children, after a physical and psychological examination, may be admitted to the MBI program on the basis of a physician's statement of neurological impairment. At the present time the district provides 27 classrooms to accommodate children with minimal brain injuries.

Among the strengths attributed to this program are the commitment of the Board of Education and administration to providing the best possible educational opportunities to children with this type of handicap; the cooperation of the building principals; early diagnosis of the impairment; and an articulated program in grades 1-12.

The evaluation techniques utilized in this program are basically pre-test, post-test procedures which utilize standardized tests.

Trainable Mentally Retarded (Primary)

This program has been in existance in the district for 15 years. Children are admitted to the program on the basis of the results of a psychological examination. The basic criterion on which students are selected is an I.Q. range from 35 to 50. The focus of the training and instruction received by children in this program is on social adjustment, that is, the ability to get along with others, and on a comprehension of certain very basic and elementary social skills, i.e., proper table manners, courtesy, following rules, etc. Some of the strengths of the program which were cited were the close working relationships between teachers and parents, the competence of the teachers, and the high degree of individualized instruction.

Basically, evaluation of pupils centers around teacher observations. However, where it is appropriate, evaluation of the pupil through the use of standardized tests is employed.

Speech Therapy

One of the oldest programs offered for children with handicaps in this district is that of speech therapy which was initiated in the late 1940's. During 1969-70, approximately 400 pupils were being served by four speech therapists in grades 1 through 6, and approximately 40 children were being served by one speech therapist in grades 7 through 12. The case load for the secondary speech therapist was considered by the program director to be a very advantageous one. However, the four speech therapists in grades one through six had a heavier case load than desirable, with a ratio of 100 pupils per teacher compared to an idealized 75:1 pupil-teacher ratio.

In addition to the pre-school clinic (a unique and innovative procedure initiated by the schools in cooperation with the several local service agencies), each therapist has a responsibility to evaluate speech impairment; and on this basis children are selected to receive speech therapy services. Loss of hearing on the part of the student also is assessed by the speech therapist.

The early diagnosis of speech impairment (via the pre-School Clinic) and evaluation and identification by the speech therapy staff were cited as the major strengths of this program.

Educable Mentally Retarded

Eighteen classrooms of educable mentally retarded pupils were being served in the school district during 1969-70. Enrollment in this program has more than quadrupled since its inception 15 years ago. A pupil-teacher ratio of 12 or 14:1 is maintained which was viewed as ideal. A psychological evaluation and a statement by a physician or psychiatrist attesting to the fact that the child's I.Q. ranges from approximately 50-70 is the basic criterion for enrollment. The objectives of the program follow traditional lines, i.e., concentration on basic social skills, combined with elementary academic pursuits such as reading, arithmetic, and exposure to the language arts. Two characteristics of the program that add significantly to its strength were considered to be early identification of the mentally retarded children via the pre-school clinic and a one through twelve articulated program with a well defined scope and sequence curriculum.

Emotionally Disturbed

To be admitted to this relatively new program, which was introduced into the educational program in 1962, children must be recommended for this special type of instruction by classroom teachers, building principals, and the approval of their parents. The child must be of normal intelligence and undergo a psychiatric and psychological examination which results in a statement from the attending psychiatrist indicating that the student would benefit from placement in this program. A pupil-teacher ratio of 1:5 or 6 was observed. The program utilizes the services of a school nurse, a visiting counselor and a speech therapist, as well as a school psychiatrist. However, need was expressed by the program director for extended psychiatric services, e.g., more hours per month to work with students and with parents.

Basically, the objective of the program is to provide youngsters with experiences which will improve their self-image. The provision of tender loving care, coupled with remedial work that will eventually result in an improved self-image, are constantly stressed. It is hoped that all pupils entering this program eventually may be returned to the regular educational program. Each child is treated individually, and the teaching methods and activities which are employed are as diverse as the problems involved.

With the exception of children who live within the attendance area, all pupils in the program ride a special education bus. This transportation arrangement is standard operating procedure for any student attending a special class at an attendance center which is located outside his attendance district and is not unique to the program for emotionally disturbed youngsters.

Minimal Brain Injury

The MBI program has been in existence for four years and provides educational experiences for children who are diagnosed as being of average intelligence but not achieving at a normal rate. To be admitted to the MBI program, this discrepancy in achievement level must be attributed to some form of minimal brain injury and attested to by a psychiatrist after administering a psychological, neurological, physical, and intelligence examination to the child.

Each of four MBI teachers instructs his own group in the area of language arts. A team teaching situation exists in that one of the MBI teachers specializes in reading, one in math, one in social science, and the fourth in science. Homeroom groups rotate so that each class or homeroom group receives instruction in a given area from the instructor who is best qualified in that particular area. All pupils participate in regular physical education classes. Some of the MBI pupils also take classes such as art with regular groups. On the basis of the pupil's ability and readiness, a concerted effort is made to phase these children back into regular classes.

Educable Mentally Retarded-Minimal Brain Injured

The position of Vocational Adjustment Coordinator (VAC) was created by the state in 1962 as part of a Cooperative School Work Program. The VAC's job includes liaison between the school district and the Vocational Rehabilitation Commission.

The EMR-MBI program was described by the VAC as follows: We work closely with the state Vocational Rehabilitation Commission and place both types of children in training situations, either on the job or at a trade school. Generally, these pupils are selected according to the abilities displayed on aptitude tests or through observation in the classroom. This year we have an enrollment of 113 pupils. Thus far this year, (December, 1969) we have placed 42 students in various capacities. Not all of the 113 students are eligible for placement this year. Normally, first year pupils are not eligible for on-the-job training or placement, except in very special situations. Pupils are placed in trade schools that provide instruction in welding, heating and air conditioning, beauty culture, business; and one pupil attends a chef school to become a restaurant cook. The majority of the pupils are handled through applications to the Rehabilitation commission, accepted by the Commission and educational plans are written in terms of the pupil's interests and capabilities. If pupils are able to handle this training, the Commission pays for their tuition and training; and they are placed on jobs either by the schools or by the vocational counselors. Pupils coming to the senior high school from the junior high school are required to take some academic subjects that are appropriate to their job training. Specific classes in academic subjects are provided, as well as specific classes in job training and preparation. After the first year pupils are handled by vocational counselors, and applications are made for rehabilitation through the Commission. When paper work is completed, these people are placed on the job or in a training situation. Placements are not confined to the immediate area; pupils may be placed anywhere in the state or in some cases even out of state for particular schools. The Commission still pays the tuition of these pupils.

Pupils who are operating at a much lower mental capacity as well as ability level are generally placed in a sheltered workshop. The pupils are enrolled in high school for the term of their training and for a period of approximately one year following completion of their training and work experience. If pupils are successful on the job, they are recommended for graduation and proceed through regular graduation ceremonies. The pupils in the program receive a diploma exactly like the diploma given to regular pupils.

The VAC acts as counselor as well as an employment agent for the pupils in the program. Once the pupil is placed on a job successfully, the VAC visits the pupil and attempts to straighten out any difficulties he may have. Sometimes the difficulties are simple misunderstandings and can be handled immediately; other times the problems stem from situations at home and require further counseling, not only with the pupil but with his parents.

By the time the pupils come to the high school the ratio of EMR's to MBI's usually is about 2:1. This is due to the fact that whenever possible the MBI's are phased back into the regular classes before they reach the senior high school. The criteria used by the VAC's for determining placement of these children are (1) mental ability, (2) emotional overlay, (3) behavior patterns, (4) interests, (5) location, (6) transportation facilities available, and (7) future aspirations of students.

District P

Deaf and Hard of Hearing

The district has provided an educational program for deaf and hard of hearing pupils for many years. The classrooms are not strictly self-contained, although for some pupils it is a self-contained classroom situation. In reality the program is an individual study program which allows some pupils to leave the classroom for math and certain other regular classes.

Pupils admitted to the program are tested by the school psychologist and an audiologist provided by the state. Children do not enter the program until grade one. The district does not provide a pre-school program, but children needing pre-school service can obtain it through a regional educational agency. A need for a director of special education in this district was expressed, as was a need for more vocational training. Special education students receive little vocational training in the school district.

Deaf and hard of hearing students are transported at district expense. Equipment in the classroom we observed included auditory training machines, an overhead projector, and a tape recorder.

Classrooms for the deaf and hard of hearing are divided into two age groups. One serves the age group 5 to 9; the other serves the age group 10 to 18. Pupils in these classes range from partially deaf to totally deaf.

It was apparent that teachers in the district are aware that many improvements could be made in their programs. In the absence of an administrative organization to accommodate program changes, programs that ten years ago perhaps were exemplary now appear to be just average.

Visually Handicapped

The school district has provided a program for the visually handicapped for over 25 years. Eight pupils are served by an itinerant teacher and most of them receive daily help. The district does not offer a pre-school program.

All pupils are screened for visual problems at the kindergarten level. The primary objectives of the program are to provide individual attention and impart security and confidence to each child, and at the high school level, to assist pupils with college entrance examination and procedures. Strengths of the program were identified as good facilities and adequate supplies and equipment. The state maintains a Blind Educational Materials Center that provides many useful materials for teaching the blind. Visually handicapped students do not receive special vocational training in this school district.

Emotionally Disturbed

This school district initiated a program for the emotionally disturbed two years ago. During the first year the program operated in a self-contained classroom and during the second year it was converted to a resource program. Currently the resource teacher works with nine children in three different schools. The children do not receive all of their instruction in a self-contained classroom, but visit the resource teacher at specific times throughout the day. A ratio of 8:1 was identified as the idealized pupil teacher ratio.

No school district census is taken to identify children for the program. The child normally is identified in either kindergarten or first grade. Either parents or teachers may initiate action for placement. The local mental health clinic also may recommend a pupil for participation in the program.

The primary objective of the program is to avoid the necessity of removing the child from the regular school program. The teacher also works to establish the support of the pupil's regular teacher and uses regular classroom materials. Extensive use is made of a tape recorder, role playing, and Bell and Howell Language Masters. Among the perceived strengths of the program were the flexibility to meet the child's needs, the cooperation of the regular teachers, and the testing and re-testing procedures.

Children are offered services of this program through the 6th grade. The program operates largely on a "space available" basis. The children are evaluated through teacher comments, student reaction, achievement tests, and classroom supervision. The program has been supported entirely by federal funds for the past two years.

Crippled Children

The school district has maintained a program for the physically handicapped for approximately 40 years. A special school has been constructed to handle this program. The pupils generally receive most of their instruction in a self-contained classroom except for physical education, physical therapy, or swimming. The most satisfactory pupil-teacher ratio was thought to vary depending upon the types and levels of the youngsters involved, but 10:1 seemed to be satisfactory.

No school district census is taken which provides for the identification of the children needing these services. Although some children may be identified prior to kindergarten, treatment is not available until they are six years old. A local hospital provides a program for crippled children who are under six years old. Placement in the program requires a parental request, as well as recommendations by a psychologist and psychiatrist and by a physician. A child will be dismissed from the program at 17 years of age or after the 8th grade. He must then (1) attend a sheltered workshop rehabilitation center, (2) attend a junior high mentally retarded program or (3) attend the regular junior high program

The district provides special transportation arrangements for these youngsters, and they travel in a district owned bus or in a commercial taxi. The physical plant was constructed several years ago with funds donated by a local banker. Some of the unique features within this facility include electric doors, ramps, rails along the walls, and special bathroom facilities.

Speech Handicapped

This school district has provided a speech handicapped program for approximately 30 years. Four schools with a case load of 440 pupils are served by one speech therapist. A local college provides diagnostic help, and a Sheltered Workshop Rehabilitation Center provides diagnostic help and therapy. The children generally are scheduled out of their regular classroom for the service. The teacher usually works with five or six pupils at a time. Her case load generally runs from 300 to 350 children.

Children are identified at the kindergarten level and therapy starts at this time. Children are identified for the program by a physician, parent, or teacher referrals and through the screening of kindergarten pupils. The primary goal of this program is to eliminate the child's speech difficulties. A pupil is dismissed from the program when he demonstrates acceptable speech patterns and when the parent, teacher, and therapist all agree that he should be dismissed from the program. The pupils participate in the regular curriculum throughout their school careers.

The speech therapy program operates on a "space available" basis, and on occasion, lunch rooms are utilized. Special equipment observed included an auditory trainer and phonic mirror.

The evaluation procedure cited was a record of the number of pupils who were released from the program. Although the program is a K-12 program, it appears to taper off after the 6th or 7th grade.

Educable Mentally Retarded

This school district has provided a program for EMR pupils for approximately 30 years and currently has approximately 15 classrooms of educable and trainable mentally retarded youngsters in the district. Two outside agencies provide services to the program; the Association for Helping Retarded provides swimming lessons throughout the school year, and the Sheltered Workshop provides various training activities. The children receive nearly all their instruction in a self-contained classroom. However, they attend physical education and music instruction with regular classes. Some of the junior and senior high school children have opportunities for industrial arts instruction and attend with regular children. The most satisfactory pupil-teacher ratio was perceived to be 14 to 1.

The school district does not have a formal census which provides for the identification of children needing the services. Children generally are identified for placement in kindergarten or grade one. After being referred, a psychological evaluation is made. Children must score between 50 and 75 on an I.Q. test to be eligible for the program. The primary objectives of the program are to develop responsible citizens, to develop the same abilities as other children possess but at a slower pace, and to enable these children to contribute to society. Children may receive services in this particular program until they reach the age of 21. Generally, pupils at the secondary level move into a work study program or into vocational-technical courses.

The transportation program for these pupils is different in that they are transported to the attendance center where the program is offered. The pupils eat lunch in their classrooms.

Evaluation of the program is accomplished through close observation by the central staff.

A great variety of materials directed toward motor coordination was evident. All of the classrooms have educational television. A salary supplement is provided for teachers after five years and ranges from $400 to $600 per year, a feature which helps attract well qualified teachers.

District Q

Educable Mentally Retarded (EMR)

This district has maintained a program for EMR children since about 1950 with the major development coming during the last ten years. During the 1969-70 school year 24 elementary, 13 intermediate, 17 high school and 4 vocational instructors were employed in the program to accommodate 900 children.

The program is operated primarily in self-contained classes, and students are grouped in levels I through V according to ability and size. The EMR pupils are integrated into regular classes for non-academic subjects such as music, art and physical education, and also for some academic subjects at the principal's discretion.

The cooperative special education and vocational rehabilitation program is for children ages 16 to 18. When a pupil reaches the age of 16 and level VI he may be eligible for the cooperative program. The pupil in this program may spend part of the school day in the classroom and part of the day in a job training center, or he may spend full time in a job training center. He is on the enrollment register of the vocational adjustment coordinator (special education teacher) and is under the guidance of the rehabilitation counselor.

The most satisfactory pupil-teacher ratio was viewed as 5 to 10 pupils per teacher at the primary level, 8-12 at the intermediate level, and a maximum of 15 at the junior high and senior high levels.

The school district conducts a yearly school census, which helps identify 5 year-old children for this program. However, teacher referrals are the main source of program participants. Each child must have a complete psychological and medical exam before placement into the program. The request for this service must be made by the parents. Unfortunately, parents often are reluctant to identify their child as being retarded. Among the psychological tests used are the Bender-Gestalt, Peabody Picture Vocabulary, Stanford-Binet and WISC.

The primary objectives of the program are job placement plus social adjustment. Basically, it is the hope that the child will develop economically useful skills and adjust as well as possible to an adult society. The strengths of the program were expressed as administrative support, qualified EMR teachers, cooperation with regular program teachers and work-oriented program. Plans for the future include increased services and further development of the occupational training program. A first year EMR pilot program in Vocational General Mechanics and Vocational Homemaking is being conducted. A bus provides transportation for pupils in this pilot program, which is an exception, as other EMR children are not provided with special transportation.

In evaluating pupils, the teacher compares the EMR child's grade level to his working level. Report cards are distributed similar to the the regular program cards with the additional program qualification that no F grades be given. Teacher conferences with parents help both parties to work realistically with the child.

The classroom equipment we observed ranged from a variety of games and a variety of reading material at the primary level to general shop equipment, typewriters and READER'S DIGEST books at the secondary level.

Trainable Mentally Retarded (TMR)

The district has operated a program for trainable mentally retarded children for about ten years. During the 1969-70 school year the program employed 12 teachers to accommodate 171 children. The belief was expressed, in their opinion, that the most satisfactory pupil-teacher ratio would be about 10:1. Pupils are grouped by age through age 11, then grouped by sex.

Children are identified for this program by a district census at age five, by the Head Start program, or by teacher observation in grade one. Children also are referred to the program by teachers and physicians. The general procedure is that the teacher refers the child to the principal. The principal then makes an appointment with the school psychologist for testing the child. The test results are examined by the placement committee to determine whether the child is eligible for and would benefit from the program. If the child is eligible, a medical exam is required. Finally, a signed statement from the parents is necessary for special class placement. The primary objectives of the TMR program are to develop the child's physical, social, and academic abilities. The major strength of this program was perceived to be a dedicated staff who create the child's learning environment.

All pupils in the program are housed in one building which was built specifically for the TMR program. The original construction was a "cottage" design; later construction was the traditional school design. In building new classrooms, 80 square feet per child is recommended.

A special transportation program is provided for TMR children from the elementary attendance center nearest their home to the special school.

Re-evaluation of children is not done regularly. Teachers are urged to refer to the principal children whom they feel should be re-evaluated.

Auditorily Handicapped

A program for auditorily handicapped children has been provided by the district for about 15 years. A pre-first grade program has been in operation since 1960. Five teachers are serving 40 children and one pre-school teacher is serving nine children in self-contained classrooms. A ratio of six pupils per teacher and teacher aide was viewed as the ideal.

Children whose hearing loss is so severe that, after all necessary medical, and/or surgical treatment, and/or use of prosthetic appliances (hearing aids), they cannot understand ordinary conversation are auditorily eligible for placement in the program. The criteria used to select children for the program are: (1) recommendation by placement committee, (2) medical examination, (3) psychological evaluation, (4) parents' request for the service, and (5) interview by the supervisor.

Pre-school children (ages 3-6) who are deaf or severely hard-of-hearing are placed in a regular child development laboratory or kindergarten. These children are given supplementary instruction by a qualified therapist.

Children ages 6-13 attend the area school for the deaf which serves the entire county. The curriculum of all area schools through the state is coordinated with the State School for the Deaf, and they use the same basic study plan.

If by the age of 14 a child has achieved a reasonable degree of independence, adequate proficiency in communication, and is able to profit from instruction in regular classes, he may attend regular schools. If the child is not able to attend a regular school, parents and school authorities make plans for him to continue his education at the State School for the Deaf – or parents may assume complete responsibility for his further education.

The strengths of the program were perceived to be the language development activities, the grouping of the children by common age, and the individual attention given to the children.

Taxi service is provided for children ages 6-13. Pre-school children must be transported by their parents. The classrooms we observed were remodeled especially for the program and had the same amount of space as regular classrooms. Special materials and equipment observed included Warren Walk Away Equipment, North Hampton Charts stressing vowels and consonants, and Fitzgerald Key Paper for language development.

Visually Handicapped

This district has provided a program for visually impaired children for eleven years. During the 1969-70 school year there are two elementary teachers serving sixteen children and one high school teacher serving eight children. This program operationalizes the philosophy of the school district by integrating the child into the regular program as rapidly as possible. Teachers believed that the most satisfactory pupil-teacher ratio would be 10 pupils per teacher.

In addition to the district census, children are identified by referrals from parents and from medical personnel. Before a child may be admitted to the program, a medical examination and a psychological evaluation are required. Children who have a loss of vision to the extent that it is impractical or unsafe for them to be educated in regular classes are viewed as educationally blind. The usual placement qualification is a Snellen equivalency of 20/200 after correction in the better eye.

The major strengths of the program were perceived to be the quality of the administration and teaching staff.

Transportation by taxi is furnished for the visually handicapped although some of the visually handicapped high school pupils ride regular school buses. Since these pupils are integrated into the regular program, they have the same course opportunities as older students. In planning new facilities approximately 100 square feet per student is recommended.

Special equipment and materials observed included typewriters, braillers, braille maps, globes, encyclopedias, and dictionaries.

Speech Handicapped

The district has had a program for speech handicapped children for 20 years. Children in this program are given special supplementary help while attending regular classes. Twelve itinerant teachers have a combined load of 1264 pupils located in 61 schools. (Speech therapists in the state must have a minimum student load of 100.) The United Fund Agency in the community maintains a speech program for pre-school children and adults at the Rehabilitation Center.

The earliest grade level that children are identified for the program is first grade. The teacher refers the child to the school principal who contacts the speech therapist for screening. The parents must give their approval before a child may be admitted to the program.

The major strength of the program was identified as the competency of the speech therapists. Also noted were the excellent attitude of principals, as well as the quality of inservice programs.

There is not time in the child's development when he is no longer offered service through this program. The duration of services for the child depends entirely upon his progress and his ability to communicate, although perfect speech pattern is not expected. The child's progress is evaluated through the use of an articulation sheet and evaluation record. Parental conferences are a part of the evaluation process.

Special equipment observed included phonic mirrors, tape recorders, and record players.

Physically Handicapped

The district has provided a program for the physically handicapped child for twenty years. There are two self-contained classrooms at the elementary level serving 19 children, and about 130 physically handicapped children attend regular classes at the secondary level.

Some of the children needing the services of this program are identified by a school census. School information cards also note brothers and sisters who may need program services. The Rehabilitation Center has a pre-school program; otherwise the first grade would be the earliest level at which children would be identified for the program.

A physician's recommendation is the chief criterion used for the placement of children in the program. A committee reviews each case and makes the final recommendation. A parental request is also required for final placement.

In the opinion of teachers, the main strengths of the program are: (1) each child works and develops at his own rate, (2) individualized attention may be given, and (3) the child may adjust to his handicap to the point where he can fit into the regular class (this must be accomplished by 7th grade).

Special classes are conducted for children enrolled in grades one through six. Children either return to the regular classroom in grade seven or receive homebound instruction. Since the child is in the regular program in grade seven, he pursues regular courses through high school, including vocational-technical courses.

Special transportation in the form of taxi service is provided for pupils in this program. At the elementary school level, children in the program eat lunch in their classroom.

The facilities we observed had been remodeled to accommodate the elementary program. In planning new construction, 125 square feet per student was recommended. Teachers thought that with special apparatus, such as wheel chairs, additional space was a necessity for the mobility of pupils within the classroom.

A committee annually evaluates the progress of each child and determines his placement before school begins in the fall.

One major facility expenditure was the $35,000 elevator installed at the high school for the use of children in the program.

Special Learning Disabilities

The district has had a program for children with special learning disabilities for three years. During the 1969-70 school year five classrooms of children were being served. The children participating in this program do not receive all their instruction in self-contained classrooms. There is no policy regarding grouping arrangements, as the rapport that the special teacher establishes with the pupil's regular teachers functions to integrate the child. The most satisfactory pupil-teacher ratio was viewed as 10 pupils per teacher.

Children are identified for the program in the first grade. Teachers refer the child to the principal who notified the school psychologist. Medical personnel and the psychologist develop a profile on the child. The child's parents must request placement in the SLD program.

The primary objective of the program is to enable the child to return to the regular classroom. Ten children were returned to the regular classroom on a full-time basis in 1968-69. The major strength of the program is perceived to be the quality of the teaching and administrative staff.

Future plans are somewhat dependent upon the implementation of the new state plan. More personnel will be hired – psychologists, counselors, and special teachers. Currently when a child attains age 15 he is no longer offered services in this program; he is transferred to the academic/vocational program at the high school.

Neurologically Handicapped (Minimal Brain Injury)

The district has provided a program for the minimal brain injured child for the past five year. Four classrooms of children are currently being served by this program. Students in the program receive all their instruction in a self-contained classroom.

The program is housed in a cottage-type setting in which four buildings provide from two to four classrooms per building. They appear to a visitor to be a modern ranch style apartment complex rather than a school campus. The outside areas are architecturally designed for children and have ample open areas for play as well as extensive playground equipment designed for coordination and muscle development. The classrooms are rather large in that they have over 900 square feet of space. Toilet facilities and ample equipment storage are provided between each pair of rooms. The idealized pupil-teacher ratio was identified as 9 or 10:1. A full-time aide would also be desirable.

A school census is not taken, so that children needing the services offered by this program are not identified prior to grade one. A teacher, physician, parent, or other individuals who might come in contact with the child within the school setting may recommend a screening to determine if the child qualifies for the minimal brain injury program. It was stated that the major objective of the program is to integrate the child into the regular classroom program as soon as possible. A teacher described the general purpose of the activities of his program as attempting to control the emotional reaction of the child as he engages in learning activities.

Neither special vocational training nor special transportation is provided for children in this program. Likewise, no special provision is made for food services. Approximately 100 square feet of area is provided for each child.

The reading program was described as being the major strength of the program. No special materials or equipment were observed in the classroom.

District R

Speech Handicapped

The district has provided a program for this category of exceptionality for 64 years. Children are scheduled out of their regular classroom to receive this service. Several public and private agencies in the school district also provide services. Speech therapists work with groups of three to five pupils as well as with individual pupils. The case load is approximately 75 pupils per teacher. All pupils are screened for speech problems at the beginning of the third grade. However, pupils with problems of a more serious nature may be referred either before or after this time.

The program is very flexible. Children may be dismissed at the speech therapist's discretion and re-enrolled at a later date should the need arise. Strengths of the program which were cited included reasonable case loads, well-trained personnel, excellent cooperation from teachers and administrators, a wide variety of equipment, and the on-going inservice programs which are planned by the teachers. Each therapist is provided with a tape recorder, an EFI machine, language masters, and has access to an extensive professional library. In addition, the therapists in the district share four audiometers, 15 film strip previewers, several phonic mirrors, and auditory trainers.

During the summer the district operates a program for those children with the most severe handicaps. These are intensive sessions and have been judged very successful. Ten attendance centers staffed by 21 therapists, 4 psychologists and 4 social workers are involved in the summer program.

Visually Handicapped

The school system has provided a program for visually handicapped children for over 70 years. There are four elementary classrooms and one junior high classroom for partially sighted pupils, and one braille elementary classroom. All instruction is provided in a self-contained classroom. Teachers were of the opinion that the most satisfactory pupil-teacher ratio at the primary level is 10:1, and at the intermediate level it is 12:1. The major strengths of the program were perceived to be the quality of the teaching staff and the provision of ample equipment and supplies.

The school district census provides for identification of children needing the services, and the health department also identifies and refers children for services. The earliest that children are identified for participation in this program is pre-kindergarten.

The criteria used to select children for the program include an ophthalmological examination. The program provides services for children from 5 to 18 years of age.

In the school district's northside schools, when the child completes sixth grade he receives the services of an itinerant teacher. In the district's southside schools, when the child completes ninth grade he receives the services of an itinerant teacher. Itinerant teachers have a case load of about 75 pupils.

Special materials and equipment observed in the classrooms included braillers, special globes, a language master, and electric typewriter, Mitchell Wire Forms, and an audio ball.

The pupils are evaluated by a psychologist every two years, but there is no comprehensive evaluation of the program.

Trainable Mentally Retarded

This program is directed by the principal of a school which is devoted entirely to special education. Children in this program do not receive their instruction in self-contained classrooms but are in contact throughout the day with special teachers in such areas as reading and music, as well as with a speech therapist and a psychologist. The idealized pupil-teacher ratio was perceived as 8:1.

Kindergarten is the earliest that children are identified for the program. The child is admitted to the program after his case has been diagnosed and a recommendation made by a licensed psychologist and by a physician.

The strengths of the program which were identified included the separate facilities that are provided, the services that can be offered in special learning areas, and the occupational adjustment program (a program designed by the school to help children enter the world of work.). Several private agencies provide one-half day training sessions for 18 to 21 year olds, and the school district offers a transitional class for the child who might have progressed to the level of an EMR program.

There is no special school lunch service for the pupils, since they are enrolled for only one-half day. All children in the program are transported.

There has been no formal evaluation of the program. Evaluation of pupils is done through subjective judgments by the teacher, principal, and supervisor. At least once every three years each child is tested and reevaluated.

Physically Handicapped

The district has provided an educational program for the physically handicapped for several years. A number of private agencies and organizations make contributions ranging from $100 to $700. Pupils receive most of their instruction in self-contained classrooms; specialists provide instruction in music and physical education. The idealized pupil-teacher ratio for this program was 15:1.

The school census helps identify these children and the city health department nurses also refer children to the schools. The criteria used to select children for this program are that they be physically handicapped and in need of physical therapy although cardiac cases are also accepted.

The pupils follow their regular academic program in addition to any special instruction required because of their impairment. Multi-handicapped children receive a variety of treatments depending upon the handicaps with which they are afflicted. The strengths of the program are embodied in the philosophy of the school, which is to take children with extreme problems and give them every opportunity to be helped before institutional care is required. The principal of the school spends considerable time with parents discussing the program and their role in it. Another strength of the program is the wide range of activities that are available to the pupils. A pupil is provided services through this program until he reaches the age of 21, or graduates from high school, or enters the work-study program (which is available to him at the age of 16).

Door-to-door transportation is provided for the pupils in this program. The school building was constructed specifically to house this program and has such unique features as ramps, a swimming pool, special restrooms, and a loading ramp for buses. The program is evaluated by state department of education personnel every three years. Because employment opportunities for these children are becoming limited, it is anticipated that the school will need to provide sheltered workshops and care stations for the multi-handicapped.

Emotionally Disturbed

During the second semester of the 1964-65 school year this school district established an experimental work-study program for emotionally disturbed boys and girls 16 years of age and older. This program combines half time, regular school attendance and half time work experience for pupils who are not learning in regular classes due to emotional factors. The program is cooperatively supported and structured by the school district and various state agencies.

The goals of this program are to provide an integrated set of study-therapy-work experiences. The educational program is specifically designed to meet each pupil's needs at his individual level of achievement; to provide a therapy program which includes individual and group counseling under the direction of a consulting psychiatrist; and to provide a work program specifically designed to meet the pupil's needs, interests, and vocational aptitudes which provide a sequence of experiences leading towards employment.

Learning Impairments

The school district has provided a program for children who have learning impairments for five years. The pupil-teacher ratio in this particular program is 8:1, which appears to be optimal, at least by the standards that have been established.

Children are identified and selected for this program by a team that includes a medical consultant, a clinical psychologist, a speech pathologist, a social worker, and the program coordinator. All diagnoses and consultations by this team are performed at a child study center which is located in a school building. A staff of clinical teachers representing the learning impairment program provides liaison between the child study center and the regular classroom teacher. These teachers analyze the clinical data and integrate it with their own evaluation of each child as a basis for structuring an individualized educational program.

The combined reports of these team members present both an historic and a current profile showing the child's patterns of physical, emotional, and social growth; and the development and maturation of the child's pattern of behavior within the home, the school, and the community. Specific data regarding the child's development and current level of communication skills are acquired. These data include an analysis of the adequacy of the child's sensorial and speech producing structures, as well as the quality of functioning in sensorial and perceptual intake, internal intellectual organization, and perceptual motor coordination requisite for expressive language.

The child study center's initial responsibility for identifying children for the learning impairment program has been retained, and its services are being expanded as a result of the growth of the program. There is also a need for a differential diagnosis of children currently in other special education programs and of children in programs outside the school who are being phased back into the public school program.

Referrals directed toward placement in the learning impairment program include boys and girls between the ages of six and nine who are of average or higher than average intelligence, and who are handicapped by behavioral and/or learning problems. The learning problem must include a measurable achievement lag. No children are admitted to the program without parental consent.

District S

Intellectually Gifted

Although no formally organized classroom for intellectually gifted pupils is provided by this system, a resource teacher does inform pupils of offerings by various community agencies which are essentially cultural in nature. Special interest programs in art, music, cultural trips, etc. are provided; however, they are not identified and related to the child's needs. State criteria for identification of children for the intellectually gifted program are (1) 130 I.Q. and (2) top 3 percent in their academic class. The program is provided for children through grade six.

Orthopedically Handicapped

The school district has provided programs for orthopedically handicapped pupils for 13 years. Two classrooms currently are being served, and pupils in these classrooms receive all their instruction in the self-contained setting.

The idealized pupil teacher ratio was thought to be about three pupils per teacher depending upon the services needed by the child, and it was strongly recommended that a physical therapist be provided.

Pre-kindergarten children may receive mobility training through the program as early as age three. Recommendations for placement of children in the program must be made by physicians. The objectives and activities of the program are available in published form. Generally, the first program priority is to teach the child self sufficiency. The academic portion of the program is provided through individualized instruction and is aimed at keeping the child from getting too far behind his age group since later he will re-enter the regular program. It was thought that extensive whirlpool facilities were of low priority if a portable unit and regular bathtub are available. The child is recommended for re-entry into the regular program once he becomes sufficiently ambulatory.

All children are transported to the instructional facility which was constructed especially to house this program and could serve as a model for the 1980's. Approximately 150 square feet per pupil is provided.

The physical facilities, special materials, and equipment we observed provide an excellent learning and teaching environment for the children as well as for the staff. The available equipment is used for building and maintaining physical skills. Special facilities for toiletry, eating, gaming, and study are designed to assist the child in dealing with his handicap. Nine children were observed in the classroom being served by one teacher and one teacher aide. The age levels of the children ranged from 3 to 21 years.

Trainable Mentally Retarded

Three levels of programming are available in the district for the children assessed to be trainable mentally retarded. The program has been operating 14 years. Currently, ten classrooms of children are being served.

Pupils receive all of their instruction in a self-contained classroom. The idealized pupil teacher ratio was identified as 8:1 with a full-time teacher aide.

Children are identified for this program at the pre-kindergarten level on the recommendation of physicians and psychologists. The selection and placement procedures are as follows: application is made to the program and the child is scheduled at the diagnostic center where he undergoes a series of physical, psychological, educational, speech, and hearing examinations; a meeting is held with the child's parents and the professional staff at which time a program is designed for the individual child; the child then is recommended for placement into the program. A review of the child's progress is made periodically and staff recommendations relative to future placement are made.

The objectives and activities of the program are available in written form. Once children have progressed through the basic primary and intermediate levels which include instructional activities designed to bring about basic survival competencies (e.g., bed making, house cleaning, toilet training, etc.), they are programmed to work in farm programs. From the farm the pupil is scheduled into the sheltered workshop at about age 16. Generally, the total curriculum involves daily survival or social skills. All students are transported to program locations.

The physical plant was constructed especially to house the program. A home environment is represented in the typical classroom with approximately 150 square feet of space per pupil available.

Pupil evaluation is accomplished essentially through teachers' assessment of students' skills and behavior modifications. In the classroom we observed eight pupils were being served by one teacher and one aide. The primary and intermediate programs are housed in the same building and serve children aged 5 through 12. At age 13 the child is scheduled into the advanced program or farm work.

Multiple Handicapped (Profoundly Retarded)

The district currently provides three classrooms for children who have multiple handicaps. All instruction is provided in the self-contained classrooms. The idealized pupil teacher ratio was six pupils per teacher with one full-time teacher aide.

Children are scheduled into the program through the diagnostic center identified in the orthopedically handicapped program. Recommendations from doctors, psychologists, and other professionals provide the basis for enrolling the child in this program, provided that he cannot be provided for adequately in any other program. The earliest identification would be at age 3 and the child could be served through age 21.

Generally, the activities are directed toward making the pupil more self-sufficient. However, it is doubtful that children in this program will ever be self-sufficient. Facilities are designed like a home and each student is taught to care for his room. Toilet training, personal cleanliness, and social skills training embody the objectives of the program. All children are transported to the

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location of the program and special diets must be provided for each child.

The building in which this program is housed was designed for the orthopedically handicapped but serves nicely for this program. Approximately 150 square feet of space per pupil is provided. The housekeeping services are more expensive because of the need of sterile floors, enclosed playgrounds, special locks, etc.

Parents provide help with instruction by volunteering one day of service per week on a rotating basis. This provides a ratio of about one adult per 2½ children. The specialized materials and equipment observed in the classroom are used for development of physical skills and home activity skills. Six children were observed in the classroom under the direction of one teacher, one aide, and one parent. Three levels of instruction are offered: level one includes children from 3 to 7 years of age, level 2 includes children from 8 to 13 years of age, and level 3 for those from 14 to 21 years of age.

Speech Handicapped

The district has provided a program for speech handicapped children for 13 years. The program essentially is handled on an itinerant basis and is offered in nine locations. Small school districts within the area that do not have enough speech impaired children to require a full time teacher receive itinerant services from the district. The idealized pupil teacher ratio was thought to be about 30 pupil sessions per week with each pupil session ranging from a half-hour to one hour in duration. (The state maximum is currently 90 pupil sessions per week per teacher.)

Children could receive itinerant services as early as age 3. Recommendations by psychologists, physicians, and teachers provide the basis for identifying children for participation in this program.

The objectives of the program are available in published form. The activities and methods employed are generally directed toward speech and language skill development on an individualized basis relative to each pupils needs.

There is no specified time when the child might be released from the program. However, as he does progress, less time would be spent with the child on an itinerant basis.

Each child is evaluated periodically by the itinerant teacher who prescribes activities to be engaged in by the child on his own time. Currently, services are being offered for four multi-graded schools, the orthopedic school, the TMR program, the Diagnostic Center, and the Child Development Center. Services also are offered on a consultant basis to the classroom teachers.

Special equipment observed included tape recorders, oral language development materials, etc.

Visually Handicapped

The district has provided services to the visually handicapped for eight years and currently is serving 10 children on an itinerant basis. One teacher provides mobility training and another functions as an educational consultant to the child. Children are provided services at home, in special classrooms for mobility training, and in the regular classroom setting, and may receive service from pre-K through 12.

The pupil teacher ratio was thought to be 10 pupils per teacher. Recommendations for program placement may be made as early as age three by physicians if the child meets the state's legal definition of the blind or partially sighted. The instructional mode of the program is essentially to prescribe mobility activities to be practiced by each pupil and his parents. Space relationships for the pupil relative to his home, school, and community round out the mobility training, and teachers act as resource persons for pupils by securing braille material, tapes, etc., as the student engages in the regular academic program. An average of two to three hours per week with each pupil is programmed.

The teachers evaluate their portion of the program in terms of services offered. The pupil is evaluated through his regular program. Concern was expressed that early identification is especially important to bring about maximum behavioral change in the maturation process of the child. More resource persons are needed especially in the area of mobility training. Specialized materials and equipment observed included a brailler, typewriter, canes, etc.

Auditory Screening Program

The school district has provided auditory screening services for 20 years. The two buses currently in use are equipped with audiology equipment needed to screen the child's hearing capacity. This program offers only screening, not instruction. Approximately 16,000 children are screened each year. A follow-up diagnosis is made if a pupil who is suspected of being auditorily handicapped is identified in the initial screening program. The earliest grade level children are identified through the program is kindergarten. The activities include the annual screening of children in grades K, one, three, five, nine, those in special education, and specific referrals. If a child fails the screening test, he is given a threshold test. A second threshold test is given within five or six weeks to insure that a temporary infirmity has not confounded the normal hearing threshold of the child. Fifteen children may be tested at one time.

Deaf and Hard of Hearing

This program had its inception in the school district four years ago. The Crippled Children's Society also offers services to children enrolled in this program primarily by providing hearing aids for children whose parents cannot afford them. A bus has been converted into a mobile classroom and travels approximately 800 miles per month to provide services for eight children per week (8 per week is the state maximum). The idealized pupil teacher ratio was identified as being eight pupils per teacher. The professional services of a physician and psychologist are available.

The earliest children are identified for this program is pre-kindergarten, and the state law provides that children may receive services as early as three years of age. The county-wide auditory screening program identifies children who need the services provided by this program. Recommendations also are received from physicians.

The objectives of the program are available in published form. The teacher's instruction time with each child varies between two and one half and five hours per week. Activities include caption films, lip reading, and other language development activities. A few totally deaf children are enrolled in a special school for the deaf in the area. No special transportation is provided for children enrolled in this program since the special bus brings the services to the pupil. The special bus used by the itinerant teachers contains expensive audiology equipment. Teachers evaluate each child's progress and make recommendations as to when the child should be placed completely back in the regular program.

Emotionally Disturbed

The school district has offered this program for 12 years. One classroom is provided in Juvenile Hall for pupils who are being detained for various offenses. One class is located in facilities provided by Good Will Industry and enrolls those pupils who are on probation or awaiting disposition in the courts although not in detention. The idealized pupil teacher ratio was identified as being 10 pupils per teacher.

Criterion for enrolling a pupil in this program is largely the result of court action where the pupil either is in detention or awaiting disposition of his case in the court and will either be institutionalized or placed on probation. If pupils are placed on probation, they are enrolled in the program for the emotionally disturbed. The instructional activities include remedial academic work and individual counseling. The program for the emotionally disturbed is also vocationally oriented and operates like many work experience programs. The pupil is disengaged from the program when he is released by the court.

A need was expressed for more individualized instructional materials for the beginning reader at the junior high level. Good Will Industry provides some employment for pupils, while others are employed throughout the community. Community employment is arranged by the teacher on a one half day basis. Separate classes are held for boys and girls. Twelve pupils were engaged in the program at the time of our visit. Pupils in the program ranged between 21 and 16 years of age.

District T

Educable Mentally Retarded

The school district has provided a program for EMR children for over 25 years. Two groups of children are served at the primary level with each group categorized according to age and physical characteristics. Primary pupils receive all of their instruction in a self-contained classroom. The ideal pupil-teacher ratio was thought to be 5:1. Meeting the needs of the individual pupil for integration into society is the primary goal of this program. The primary strength of the program was perceived to be the availability of a wide variety of instructional material.

Several pre-school programs operated by private agencies or by the school district help identify children for this program. The earliest that children are identified is generally during the kindergarten year. Children are selected for participation in the program through teacher recommendations, a psychological evaluation, and an interview with the parents by the program director.

Pupils who come from other attendance centers are transported by the district, and pupils in this program receive free lunches. The current practice is for teachers to share equipment and materials; thus, we observed no special equipment in the classroom we visited.

There has been no formal program evaluation other than the usual evaluation of the pupils.

Trainable Mentally Retarded

This district has provided a program for trainable mentally retarded pupils for 11 years. The basic philosophy of the program is that the pupil should continually be in contact with the community. A major objective of the program is to attempt to integrate TMR pupils with regular pupils to the greatest extent possible, and at the earliest age possible. The view was expressed that an ideal pupil-teacher ratio would be 7:1. A perceived strength of the program was the grouping of pupils by ability so that they may work with each other.

The earliest that children are identified for this program is during kindergarten, and intelligence testing is done at that time.

Transportation and free lunches are provided to all children in this program. Special equipment and materials observed in the classroom centered around programmed or individual learning and included such items as a Peabody Language Kit, charts, graphs, handycrafts, simple building tools and basic audiovisual equipment.

Speech Therapy

The district has provided a special program for pupils with speech handicaps for many years. Speech therapists meet with pupils in this program two, three, or four times per week for 20 minute sessions. Time is also allotted for the therapists to visit the parents of pupils one afternoon each week. The case load is approximately 60 pupils per therapist.

The earliest that pupils are identified for participation in the program is kindergarten. All pupils are screened for speech problems in the second grade, but most pupils who are provided speech therapy do not become involved in the program until they reach the third grade. The primary strength of the Program was perceived to be the individualized and intensive instruction that the therapists are able to provide for pupils in this program.

Auditorily Handicapped

The school system has provided a program for auditorily handicapped pupils for more than 50 years. At the high school level, the teacher serves as a resource teacher and pupils utilize the resource room as needs arise. Six classes were being served by seven teachers at the elementary school level. Pupils in the elementary schools receive all of their instruction in self-contained classrooms. At the junior and senior high school levels, pupils are integrated into the regular program.

The view was expressed that five to seven pupils per teacher was a satisfactory pupil-teacher ratio.

The program depends upon parents, doctors, and nurses for the identification of auditorily handicapped children, and pre-school children may be identified for this program. The selection of children for participation in the program is based largely on recommendations by physicians.

The ultimate objective of the program is to enable pupils to acquire the communication skills needed for successful integration into the regular program. The oral instructional method, rather than the sign method, is employed in the program. Perceived strengths of the program included the well-qualified staff, the leadership being provided, and the in-service training sessions for the staff which are conducted throughout the year.

The program is somewhat unique in that it enrolls 61 pupils from ten other school districts who are served on a tuition basis. This necessitates a large transportation budget which is paid for by the school districts involved. All children who are transported are provided with a hot lunch every day. The classrooms used in the program have been modified by the addition of red flashing lights for fire warnings, and auditory loops have been installed in some of the rooms. The special materials and equipment observed included a boom mike, various kinds of auditory equipment, earphones, a film strip viewer, and a record player with a large number of jacks.

Program evaluation is provided by state education department visitations, teacher evaluation of pupils, and follow-up studies of pupils.

Partially Sighted

This district's program for partially sighted pupils was started 30 years ago. Pupils in this program leave the special classroom for instruction in social studies, music, and physical education. A pre-school program for partially sighted students also has been developed. Vocational courses and a work-study program are offered for high school pupils. The strengths of the program were perceived to be the excellent support from other teachers and from the administration, and the availability of needed supplies and equipment.

Children are referred for the program by parents and by physicians. Pupils are offered the services of this program until they are 20 years old.

Private transportation is provided for partially sighted pupils. The classroom we observed was a standard classroom which had been converted for use in this program. Equipment in the room included large type books, primary typewriters, portable typewriters that pupils may take home, tape recorders, and magnifying glasses.

Physically Handicapped

The district has maintained a program for physically handicapped pupils for some time. Various services for such children are also provided by other community agencies. Two community agencies conduct pre-school classes for physically handicapped children.

Kindergarten is the earliest that children are identified for participation in the school district's program. The objectives of the school program are two fold: if the child can lead a normal life, the emphasis is on preparing him to enter a regular acadmic program; if the child cannot lead a normal life, activities are directed toward helping the child integrate and maintain himself in society. The ideal pupil-teacher ratio was thought to be 8:1. Children are retained in the program until they reach 18 years of age or until they are integrated into the regular program.

A specially equipped bus transports the children. Lunches and assistance in eating meals are provided the children in this program. Special provisions in this facility included a cafeteria, restrooms, a whirlpool room, ramps, and railings on and along chalk boards and in the halls.

Multiple Handicapped

The school district has provided a program for this category of exceptionality for two years and has only one classroom serving this program. Three community agencies also provide some services for these children. The ideal pupil-teacher ratio was perceived to be four to six pupils per teacher.

Identification of children for this program is usually done by physicians and nurses. The earliest that children are identified is at the first grade. A basic objective of the program is for the child to discover and develop his potential. The classroom activities center around self-help and readiness skills.

Pupils are either transported by parents or on especially equipped busses and are provided a free school lunch.

Emotionally Disturbed

The school district has provided a program for emotionally disturbed pupils for two years, and during 1969-70 three teachers were involved in the program. Pupils spend a portion of their day in regular classrooms and the remainder of the day in a special classroom depending upon their needs. A reward technique is employed in teaching these pupils. The teacher uses several tokens which pupils can use to purchase candy bars and other items.

Children are generally identified for the program by a kindergarten or first grade teacher. A psychological and a physical exam are required before a decision is made as to the placement of the child.

A pupil is dismissed from the program when he can function adequately in a regular classroom.

Since this program is provided in only three attendance centers, transportation is a major budget item. The pupils generally spend a half day in their regular school, and then come to the program center for the remainder of the day. This arrangement was criticized because the teacher may not be available to pupils in a crisis situation.

The classroom we observed was very large and could be divided by closing a folding door. In new construction, a work room equipped with appropriate tools, an activity room, and a quiet room would be desirable. Among the special materials and equipment which we observed were a tape recorder a listening station, a filmstrip viewer, a typewriter, workbenches, tools, study carrels, and a wide variety of books and games.

There has been no formal evaluation of the program other than individual evaluations by teachers and reviews of the progress of pupils.

District U

Trainable Mentally Retarded

This regional agency has provided a program for trainable mentally retarded children for approximately ten years and operated ten classrooms during 1969-70. Pupils in the TMR program receive a portion of their instruction in a self-contained classroom. Of a five hour school day, pupils spend approximately three to four hours in a self-contained classroom and an hour to two hours in regular program activities such as physical education and art. An idealized pupil-teacher ratio for the program was perceived to be 6:1.

This agency offers TMR programs as early as kindergarten. One criterion used to select children to participate in the program is an I.Q. score in the trainable range, e.g., a Standford-Binet score of 25 to 50. The basic objectives of the program are to help pupils develop acceptable social behavior, self-help skills, communication skills, practical knowledge, and proper body usage. The major strengths of this program were thought to be the curriculum structure and adequate supervision. A child is no longer offered the services of this program after he attains the age of 21. Vocational-technical courses are offered TMR pupils through a sheltered workshop for those beyond high school age.

Transportation for this program is provided by the regional agency and by the school district in which the pupil normally would be enrolled. Each school district that is a member of the agency either provides transportation for its pupils or pays the regional agency to transport them.

The pupils are evaluated by the following process: (1) periodic teacher evaluation using a check list developed by the agency, (2) a group evaluation at least once a month, and (3) evaluation by clinical personnel once a year.

Special materials or equipment observed in this classroom included a great variety of toys, puzzles, books, and extensive teacher-made materials.

Educable Mentally Retarded

The agency has offered a program for 15 years and currently provides approximately 14 classrooms of instruction for EMR pupils. The elementary and junior high levels are housed in self-contained classrooms in which the more advanced programs are partially integrated with a vocational school. The idealized pupil-teacher ratio would be 6:1.

Children are identified for participation in the program through psychological testing and must be within an I.Q. range of 50 to 75. The objectives of the program are directed toward personal development within the child's environment and further directed toward integrating the child into the regular program.

The behavior change in each child is assessed on a regular basis; and once the child has been identified as having minimal competencies, he is recommended for transfer to the regular program. All children are transported if they do not live within the attendance area of the school which they are assigned. The classroom we observed was remodeled for this program. Remodelling consisted essentially of dividing a room to handle both the EMR and Learning Disabilities programs.

The teacher evaluates the children academically; the teacher, social worker, and psychologist provide an annual evaluation of each child. Children are provided with special reading services, physical education, and library for one period per week outside the self-contained classroom The agency provides services beginning in grade 1 and continuing through grade 12.

Learning Disabilities

A program for children with special learning disabilities has been provided for about nine years. Approximately 60 children are provided these services. Most pupils receive their instruction in a self-contained classroom although a few children are integrated with regular classes at the middle school level. The idealized pupil-teacher ratio was perceived to be 11:1, depending on the behavior of the pupils. The services of a psychologist, social worker, reading consultant and speech therapist are provided the program. A need for program expansion in the area of industrial arts and homemaking was perceived.

Children are recommended for the program by their local school district. The earliest grade level that a child is identified for the program is grade one. The criteria for selecting the child includes screening conferences with a psychologist and a social worker. The general goal of the program is to integrate the child back into the regular program. Future development within this program will be directed toward providing a resource room rather than a self-contained classroom. Once the pupil demonstrates academic ability and behavior such that he might function reasonably well in a regular classroom he is disengaged from this program and returned to the control of his regular school district.

Students in this program are offered the vocational-technical courses that are provided by the regional agency to the school districts within the attendance area of the agency. All pupils not located in the attendance area of the school to which they are assigned are provided special transportation.

The teacher provides the academic evaluation while a psychologist provides psychological tests on a periodic basis for each child. The children receive special services from speech, music, and physical education specialists.

Speech Handicapped

This regional agency has offered a program for the speech handicapped for nine years, and there are approximately 50 children enrolled at this time. Services are generally offered on an itinerant basis, and the idealized pupil teacher ratio was identified to be one child per teacher.

Children are identified for the speech therapy program through a screening process which is conducted each fall within each school district covered by the regional agency. Children are normally engaged in the speech therapy program at the kindergarten level. Identification is made through reports from psychologists, psychiatrists, social workers, and teachers. The speech and hearing impaired are engaged in programs directed toward total language development as well as toward overcoming the associated handicap.

If the child does not live in the regular attendance area, then transportation is provided. The site we visited was housed in facilities owned by a local church and were being remodeled in what was termed an "open school concept".

Each spring the therapists recommend whether or not individual children should be continued in the speech and hearing program. Twenty children per week were accommodated in the center we visited. The program was organized within two class sessions per week consisting of 10 children each period. Diagnostic testing and prescription is done by the therapist, and reports are provided for the regular classroom teacher who continues to work with the child.

Auditorily Handicapped

The agency provided a program for auditorily handicapped pupils for three years. Only one classroom was available to pupils in the district during 1969-70. Children receive instruction from therapists in either a self-contained classroom or a resource room depending upon the individual needs of the child. The idealized pupil teacher ratio was identified as 8:1, assuming the pupils are of similar age and ability.

Children are identified for this program in kindergarten by means of an annual screening program in the local school districts. Regular school subjects are used as a vehicle for instruction, and the child is integrated into the regular program whenever he is adjudged to be sufficiently competent to benefit from the regular program.

The strengths of the program were identified as maximum equipment availability, small pupil teacher ratios, and freedom for teachers to develop the curriculum. Plans for future program needs and development include a new building, resource room basis instead of self-contained rooms, additional equipment, and a program that will be more identified with deaf children than the multiple handicapped.

Transportation is provided if the child does not live within the attendance area of the school.

Visually Handicapped

The school district has offered programs for the visually handicapped for 12 years. The program operates on a resource room basis, and the pupils are integrated with the regular instruction program.

Each school district that is a part of the regional agency screens pre-kindergarten and kindergarten children each year, and recommendations to engage children in the program for the visually impaired are made on the basis of these findings. Physicians also recommend children for this program. The number of children involved in the program is decreasing each year, and it is expected that in the near future the program will be phased out although one teacher likely will be continued on the staff of the agency to serve as an itinerant teacher for the total region.

As a result of an individual evaluation, a child might be disengaged from the program, although he could continue to receive services from the itinerant teacher upon request. Vocational-technical courses are offered in the regular program and visually impaired pupils engage in these activities. The resource teacher attempts to work out any problems of adaptation with the pupil and the teacher involved.

All children are provided transportation. In the school we visited, no special space was provided although the resource teacher did maintain a small corner in the instructional materials center of one of the high schools. Special equipment and materials that were identified in the instructional materials center included a brailler, and an IBM braille typewriter. Extensive use is made of audio equipment, especially at the secondary level.

District V

Trainable Mentally Retarded

Children in this program receive their instruction in a self-contained classroom. The idealized pupil-teacher ratio was identified as being 15:1, and the ideal situation would include a teacher aide. No school district census is taken to identify handicapped children prior to kindergarten. Most children are not identified and do not enter the program until the second grade level. The major strength of the program was perceived to be the program personnel. Children in this program are no longer offered services through the school when they reach the age of 21. No high school vocational-technical courses are offered these children.

The transportation program differs from that provided for regular pupils in that pupils in this program are offered transportation on a door-to-door basis. The food service, although not specifically different, does permit the children to prepare lunch in their own room one day a week. Maintenance costs are reduced somewhat because pupils do their own cleaning; in the classroom we observed, each student had his own broom and his own assignment of cleaning each day. The pupils are evaluated primarily by the teacher's subjective judgment. The primary program objective is instilling self reliance in these children so they can make their way in the world. Special equipment and materials observed included a stove, refrigerater, dishwasher, outside grill, tape recorder, phonograph, punching bag, scooter boards, teeter boards, and a ball for each child.

Educable Mentally Retarded

Pupils in this program receive only a portion of their instruction in a self-contained classroom. There is a specific effort to integrate pupils into the regular classroom as soon as possible. The most satisfactory pupil teacher ratio was identified as 17:1. Since there is no school district census to identify children for the program prior to kindergarten, the earliest that children enter the program is at the second grade level.

The pupil is no longer offered the services of this program after his reentry into the regular school program. Vocational-technical courses offered these pupils are the same as those offered to regular children. No special transportation or food services are provided pupils in this program. The classrooms we visited were specifically vocationally oriented. Special materials and equipment in the classroom included a stove, hairdryer, dishwasher, cash register, three tape recorders, a plumbing unit, adding machine, clothes dryer, radio, irons, piano, ditto machine, and eight typewriters.

Educationally Handicapped

The district has provided a program for educationally handicapped pupils for about five years. Pupils in this program do not receive all of their instruction in a self-contained classroom. The primary objective of the program is to integrate these children into the regular school program as quickly as possible. After this is accomplished, the teacher of the educationally handicapped functions as a resource person who provides special help for the pupil and his regular teacher. The idealized pupil-teacher ratio was perceived to be 8:1 for the primary grades, 10:1 for grades 4 through 8, and 12:1 for grades 9 through 12.

Children are identified for placement in this program by the classroom teacher, the principal, a doctor, or the parent. Methods used include psychological tests, teacher observation, or nurse and doctor evaluation. The earliest grade level that children are identified for this program is kindergarten. The strengths of this program were perceived to be the staff, the process of child identification and treatment, and the success attained in getting the children back into the regular classroom as rapidly as possible. The child is no longer offered the services of this program after he has been integrated successfully into the regular school program or he terminates his attendance in the school. Vocational-technical courses are offered to children in this exceptionality when they are in high school.

Home to school transportation is provided for children in this program if they live beyond the attendance area of the school where the program is housed. Pupils are evaluated primarily in the reading area and overall gains are measured using a standardized test. Other evaluation is primarily subjective. Specific equipment observed in the classroom was geared to individual pupil needs and included language masters; listening posts; typewriters; a tape recorder; control readers; listen, look, and learn EDL material; and Hoffman material. One significant feature of the program was the number of volunteers including high school and college students who worked with these children.

Crippled Children

The school district has provided a program for crippled children for approximately 15 years. At present there are four classrooms which serve the children enrolled in this program. (The county provides the occupational and physical therapists who operate within this program.) The pupils generally receive all of their instruction in a self-contained classroom except when they leave the room for speech, physical, and/or occupational therapy.

The most satisfactory pupil teacher ratio was perceived to be 7:1. No school census to provide for the identification of children needing the services of this program is taken although physicians in the area generally report children with this handicap when they are born. The earliest that children are identified is at 3 years of age. The school district follows the state provision for an admission or placement committee.

The regular school curriculum is followed according to the individual needs of each pupil. The opportunity for individualization and allowing children to remain within the family structure were cited as strengths of the program. Children enrolled in the program are dismissed from it when they can function effectively within the regular school classroom. The upper age limit for participation in the program is 21.

Special transportation arrangements are made for the children enrolled in this program. In addition to travelling on special buses, they receive door-to-door service. Although the physical plant was not constructed especially for this program, special bars have been installed on the walls of some of the classrooms to assist pupils in walking, etc. Special equipment and materials observed in the classroom included two typewriters and stands, some special desks and exercise equipment, a phone, book rack, a stove, refrigerator and a tape recorder.

Evaluation of pupil progress constitutes the evaluation of the program.

Visually Handicapped

The school district has provided a program for the visually handicapped for 13 years. There are two resource rooms located in the district. One resource room is for pupils in grades K through 8. The other resource room is for high school pupils. Pupils in this program attend regular classes and visit the resource room only as the need arises. The period of time that is spent in the resource room is generally very short. In the teacher's opinion the most ideal pupil teacher ratio would be 3:1. The earliest grade level that these children are identified is in kindergarten.

The program's primary objective is to enable the visually handicapped students to assume an independent role in society. The opportunities for integrating the pupil into the regular program, the opportunity to allow these pupils to remain at home and with their peer group, and the cooperation and support of the other teachers were cited as strengths of the program. The child is offered the services of this program until he graduates from high school.

The transportation program for these pupils differs in that they are provided door-to-door transportation service. The elementary resource room is located in a relocatable classroom and was especially designed for this program. There are quiet rooms for individual study, as well as a large group meeting area. The special equipment observed included braille and large type typewriters, World Encyclopedias, a braille dictionary, four typewriters, a magnifying machine, and an electric braille typewriter.

The school district also operates a braille center where an individual prepares braille material for the entire district. She also orders records and tapes for the various programs and maintains contact with the state despository for braille materials. Her primary function is to reproduce necessary materials for the regular classroom teacher as well as the resource teachers.

Speech Handicapped

The school district has provided a program for this exceptionality for several years. The speech therapists in the district normally carry a case load of 80 to 90 students. These teachers work with groups of one, two, or three pupils. The speech therapist who functions in the orthopedic classroom has a case load of 30 pupils and always works with one pupil at a time. The students enrolled in this program are generally scheduled out of their regular classroom for speech therapy twice a week. In severe cases the pupil will see the speech therapist more frequently.

In the teacher's opinion the ideal case load was thought to be 55 pupils per teacher. The teacher expressed the belief that a speech therapist cannot work effectively with a group of more than three pupils at one time.

Children are screened in kindergarten, grade two and grade four. After grade four pupils may be referred for participation in the speech therapy program. The usual admissions placement committee is used, but the therapist may exercise some discretion with regard to who will enter the program. The primary objective of the program is to develop the pupil's communicative skills commensurate with his abilities. The activities and methods employed are designed to meet the needs of individual students. The teachers cited a well coordinated program, good lines of communication, and a reasonable case load as strengths of the program.

The students who are enrolled in this exceptional program are no longer offered its services when they cannot continue to profit from the instruction. They also may be dismissed from the program if there is a lack of cooperation from the children and from the parents.

The only program evaluation is an evaluation of each pupil by the speech therapist. The placement committee also reviews annually the progress of each child in each of the programs.

Auditorily Handicapped

The school district has provided a program for this category of exceptionality for approximately 15 years. During 1969-70 there were six classes serving 40 pre-school children ages 2 - 6; five classes serving 30 primary pupils ages 6-11; and three classes serving 20 intermediate pupils ages 11-15. The 12 high school pupils have access to a resource room. The exceptional school for the deaf is located adjacent to a regular elementary school. Those children who have the ability to function in the regular school classroom are encouraged to do so. The most satisfactory pupil teacher ratio was thought to depend upon the age of the pupil. Below age eight, 6:1 is the most satisfactory. Above age eight, 8:1 is the most satisfactory. The identification process is rather informal and generally originates with parents. Age three is the earliest that children are identified for this program. The objectives of the program are available in published form. The primary objective of the program is to make pupils self sufficient. Among the strengths of the program cited were individualization of instruction, flexibility of scheduling and grouping, the opportunity for integration into the regular classrooms, the professional qualifications of staff members, and the cooperation which exists between the teachers and the administrative staff. The children who are enrolled in this program are dismissed from it when they can no longer benefit from the program, when they may be integrated satisfactorily into the regular program, or when they reach age 21.

Pupils in this program, as in other exceptional programs, receive door-to-door transportation. The building we observed was constructed especially to house this program. The rooms are looped and are equipped with special lighting systems which eliminate all shadows. The rooms are carpeted and especially pleasant. Some special costs are required to maintain the electronic equipment which is used in the program.

There is no formal evaluation of the program as such. The evaluation of pupil progress and the evaluation of teachers are both phases of total program evaluation.

The district provides program services for several surrounding school districts on a tuition basis. This provides enough pupils to enable the provisions of a program far superior to the programs which could be offered by the individual districts.

District W

Intellectually Gifted

This district has maintained a program for the gifted sporadically since 1921. During the 1969-70 school year there were 12 self-contained elementary classrooms and 200 gifted high school pupils integrated into the regular program. The elementary school pupils receive all their instruction in a self-contained classroom although some team teaching is employed. The most satisfactory pupil-teacher ratio was perceived to be 22:1.

Teachers in other exceptional programs receive extra salary benefits – teachers in the gifted program do not. Nevertheless, the program has had the same staff since 1963 at the elementary school level. To be considered to teach in the gifted program, a teacher must have five years experience, have a liberal arts background, and not be threatened intellectually by the pupils. The teachers must develop their own curriculum. Most of the equipment is either made or "appropriated" for the program. Observed were many old typewriters and newspapers, in particular, the Wall Street Journal.

Participants in this program are identified by the time they reach fourth grade. Two intelligence and two achievement tests are used for identification: (1) Otis-Alpha-2nd Grade, (2) New York State Pupil Evaluation Test - 3rd grade, (3) Iowa Test of Basic Skills - 4th grade, and (4) Otis-Beta - 4th grade. Borderline cases are tested with WISC. In addition to the test results, pupils are evaluated by teachers and principals. Cases are referred to the program director, who conducts a thorough screening before the case goes to the selection committee. After a pupil has been accepted for the program, the parents are interviewed and the program is described to them.

The strengths of the program were thought to be the excellent teachers, the ability to make provision for children to learn at their own pace, and the ability to go beyond the curriculum. The program begins at about the fourth grade and terminates after the 13th grade.

Special transportation is provided for these pupils in that they are given a bus pass which provides them with transportation to a specific attendance center.

The evaluation of the program was recognized as the "weak spot". i.e., "How do you test the top students?" It was suggested that the evaluation process might be improved by using certain personality and creativity tests.

Auditorily Handicapped

This district has operated a program for auditorily handicapped children for 53 years. There are four hearing conservation teachers and three resource teachers for 51 children, grades K-12; and four self-contained classrooms teachers for 30 children, grades 1-6. The county health department provides two audiometer technicians and three other specialists for the program.

At the elementary school level, three self-contained classrooms for grades 1 and 2, grades 3 and 4, and grades 5 and 6 are provided, and one classroom is provided for children who have brain damage and need more individualized instruction. The most satisfactory pupil-teacher ratio was perceived to be not more than 8:1 and perhaps less, depending upon the severity of the pupil's problem.

The county health department provides a summer pre-school program of hearing and vision screening. Clinics are located throughout the county and parents are encouraged to take their children for screening. There is a mass screening of all first graders for possible placement in the program. Kindergarten children are screened on referral.

The major objectives of the program are to improve the academic achievement and language skills of elementary and secondary school pupils who have impaired hearing and who are enrolled in regular classes. The strengths of the program were thought to be small classes, specialized equipment, qualified teachers and the acceptance of the program by regular classroom teachers. A private school located within the district provides services for deaf and hard-of-hearing babies, and also provides services for children from nursery school through high school.

The public school program does not operate in self-contained classrooms beyond grade six. Pupils needing services in grades 7-12 are picked up by resource teachers. Secondary school pupils may spend one half of their time in academic programs and one half in vocational programs.

Children are bused door-to-door by the district. Non-resident pupils are either transported by their parents or by the school districts in which they reside. In planning new construction 100 square feet per pupil is recommended. Special classroom equipment and materials observed included Warren Walkaway units (1 per classroom), hearing aids mounted on the table (8 per classroom), and a Peabody Language Development Kit.

Speech Handicapped

This district has provided a program for speech handicapped children for 56 years. Children in the program receive tutorial help while attending regular classes. The county health department supplies a screening program as a special service. The most satisfactory pupil-teacher ratio was identified as four pupils per teacher at one time. The type and severity of the child's problem dictates the appropriate ratio.

There is no school district census to identify children needing services of this program. The earliest that children are identified for the program is kindergarten. Diagnostic testing is done by a speech therapist upon referral of the child by the teacher, psychologist, or other school personnel.

The major strength of the program was identified as the provision of services to all children enrolled in public schools at all grade levels and in special classes. Children receive a minimum of two speech therapy sessions per week; inner city children and physically handicapped children often receive three or more sessions per week. Speech improvement is offered to all first graders.

The opinion was expressed that the evaluation process could be improved by universal pre- and post-testing; that parents and teachers should be involved in designing a subjective instrument; and that therapists should consult more frequently with the regular classroom teachers.

Special equipment observed included tape recorders, auditory training equipment, language development kits and a language master.

Physically Handicapped

This school district has provided special classes for orthopedically handicapped children for 49 years. The county health department furnishes physicians, physical therapists, aides, and nurses to assist in implementation of the total program.

The goals of the program are to develop independence on the part of the child and to provide the child with the skills needed for job placement. Children admitted to this program pursue a regular educational program, articulated K-12, and modified as necessary to meet the child's needs and abilities.

Selection criteria for the program include a medical examination, a psychological evaluation, and educational data. Entrance to and from the program are reviewed by medical consultants, the principal, a social worker, a psychologist, the physical therapy supervisor, and the special education department supervisor.

Visually Handicapped

This school district has provided a program for the visually handicapped since 1919, and four classrooms of pupils were served in 1969-70. The most satisfactory pupil teacher ratio for this program was perceived to be 10:1. The district's philosophy is to integrate visually handicapped pupils into the regular program wherever possible. One example of this was a blind girl who was attending regular high school classes with the help of a seeing eye dog.

No school district census provides for identification of these children prior to kindergarten, and the earliest that the children are identified is during kindergarten. Criteria for selecting children for participation in the program follow the state regulations and also include the recommendation of an ophthalmologist based upon medical, mental, and educational factors.

The major strength of the program was considered to be the emphasis placed upon integrating the child into the regular academic program. Vocational-technical courses are offered these pupils in the high school annex program that will be mentioned in the EMR program description, and also through a cooperative work experience program.

Special transportation is provided for pupils in this program. The classroom we observed contained a substantial amount of special materials and equipment. There were six primary typewriters available for children beginning in grade three, and pupils were encouraged to type their own work. In addition, there were braille books, record players, film strips, magnifiers, talking records, and tape recorders available.

Program evaluation consisted largely of subjective judgments with regard to how well the pupils were able to adjust to a regular school program.

Educable Mentally Retarded

The district has provided a program for educable mentally retarded pupils for many years and leans quite heavily toward an integrated work-study type of program. On the secondary level, there are special EMR shops for work-study preparation in industrial arts and home economics. A regular academic program is provided in self-contained classrooms at the elementary school level with instruction in physical education and music outside the classroom. The most satisfactory pupil-teacher ratio was perceived to be 15:1 for the elementary school program and 18:1 for the secondary school program. The overall objective of the program is to prepare pupils for the world of work. This is an ongoing objective and culminates when pupils actually participate in work-study programs. A unique aspect of the program is the special education shops which were established especially for pupils in this program and which are available to pupils in the second year of high school. A "high school annex program" also is provided and enables pupils to receive a half-day of instruction in a specialized vocational program and a half day of regular academic instruction. A pupil is no longer offered services in the program after the age of 17 when he completes his occupational education program. After age 17, the pupil may go on to a regular work-study program and can attend an evening class two nights a week. A program administrator is responsible for coordinating the EMR program with the regular school program and also provides liaison with the community for the work-study program.

The earliest that children are identified for the EMR program is kindergarten although there are some pre-kindergarten programs offered by private agencies. The criteria for selection of pupils include individual psychological and medical examinations. Admission generally is restricted to those who score more than one and one-half standard deviations away from the I.Q. norm which is about 78.

Among the strengths of the program which were cited were the ability to attract quality personnel because of the program's reputation. (The district also pays an additional $320 per year to EMR teachers.) Curriculum objectives, methods, and procedures are continually reviewed. Excellent support is provided through the availability of psychologists and other personnel, and an adequate amount of materials and supplies are provided. Community support for the program is strong and home visits are made by teachers.

Door-to-door transportation is provided for EMR pupils at the elementary school level. Among the unique features of the physical plant were the vocational shops at the secondary school level which included such distinctive features as a restaurant, a dry cleaning plant, and a shoe repair shop.

Program evaluation is subjective. The use of resource teams to evaluate the program and recommend improvements was mentioned as a possibility.

Trainable Mentally Retarded

Many features of this program are similar to those described in the EMR program description. However, pupils in this program are housed only in the elementary schools, and most of their instruction takes place in a self-contained classroom. The idealized pupil-teacher ratio for this program is thought to be 10:1 at the primary level and 12:1 at the intermediate level, assuming the availability of a teacher aide.

Kindergarten is the earliest level at which pupils enter the program. The strengths of the program are similar to those described for the EMR program. One desire is to develop a high school vocational training program for these pupils. Pupils in the program are transported separately and are provided a school lunch which they prepare and eat in their own classrooms. The physical plant was designed specifically for this program and includes bathroom facilities and home living provisions.

Ungraded Slow Learner

The special ungraded program for slow learners fits between the regular school program and the EMR program and is for pupils with I.Q.'s between 76 and 89. The program follows the general guidelines of the EMR program, but pupils are not placed in special self-contained classrooms. The most satisfactory pupil-teacher ratio for this program was perceived to be 18:1 for the elementary grades and 20:1 for the secondary grades.

The earliest that children are admitted to the program is at nine years of age. A unique feature of this program is that participation is completely voluntary. Parents can decide whether or not they wish their child to be enrolled in the program.

A cited strength of this program was that the curriculum is based primarily on the level and interest of the pupils and that functional learning situations are provided. Pupils are provided vocationally oriented programs at the secondary school level, and a coordinator provides liaison between the regular teacher and the community. A pupil may move from this program to the regular program or to the EMR program. A pupil transfers from this program to a work study program at age 17.

There has been no formal evaluation of this program since 1958 and little emphasis on post-school, follow-up studies.

Learning Disabilities and Emotionally Disturbed

In addition to the resources provided by the school district, several community agencies also provide specific services for children in this program. Children in the program receive most of their instruction in a self-contained classroom. At the elementary level, most instruction is provided by special teachers. At the secondary level the instruction varies depending upon the complexity of the child's problem.

The earliest that children are identified and admitted to the program is kindergarten although usually they are not admitted until the age of 8 or 9. Criteria for admission to the program include a statement from a licensed psychologist or psychiatrist, and a statement from a physician.

The primary strength of this program was identified as the individualized instruction which is provided for pupils who have emotional problems. A constant objective of the program is to enable the child to return to a regular classroom situation as rapidly as possible. A pupil is no longer offered services through this school program when he is able to return to the regular school program, when he is 21 years of age, when he regresses and must be confined, or becomes a dropout.

Transportation is provided to those pupils who live outside of the school attendance area. The classes for pupils with perceptual problems which we observed were housed in two rooms that were specifically designed for this program. These rooms contained carpeting, individual study carrels, partitions to facilitiate small group discussion, restrooms, acoustical tile ceilings, and an observation window and booth.

The program was evaluated primarily by the subjective judgments of teachers using a pupil behavior inventory. In addition, a variety of achievement tests were given, attendance was an evaluation measure, and the number of pupils who actually wanted to come back to school or return to regular classes was used.

A unique feature of this program was that a few instructional centers were located in settlement houses in order to keep the child in a separate environment. Teachers thought that some children were reluctant to take part in the program unless this isolation was provided. This was a new feature of the district's program. Children participated in this program on either a full time or a half time basis and ranged from 6 to 21 years of age.

District X

Multiple Handicapped

The program for multiple handicapped pupils in this school district was unique in that all of the children observed in the classroom were totally deaf and also had other handicaps. Two of the pupils had epilepsy and most of them had emotional or health problems. This was a self-contained classroom taught by a totally deaf teacher. The primary objective of the program was to teach these children to communicate with others by means of sign language. (The parents of these children also are offered sign language instruction.) The children ranged in age from 5 to 10 years. The teacher, through an interpreter, pointed out to us the necessity of using real objects in teaching sign language. Special equipment used in this program included sign language charts, flash cards, and auditory training equipment. Workbooks also were provided for reading and mathematics. The teacher was assisted by an aide who had normal hearing and speech. It was obvious that both the teacher and the teacher aide had unusual empathy for the emotional and educational needs of the pupils. A major strength of this program is that it enables severly handicapped children to remain at home and still receive training.

Educable Mentally Retarded

This school district has provided a program for educable mentally retarded pupils for many years. Primary EMR students are grouped into four age groups: Primary I includes 6 and 7 year olds; Primary II includes 6, 7, and 8 year olds; Primary III includes 8, 9, and 10 year olds; and Primary IV includes 9, 10, and 11 year olds. Intermediate – 10, 11, and 12 year olds – and secondary school groups also are served by this program. Most of the instruction is provided in self-contained classrooms. However, pupils do move to regular programs on either a part time or full time basis, depending on the progress of the child. A strength of the program is a low pupil-teacher ratio which allows a great deal of individual attention to be given to each child. Also, a teacher aide is provided in each building.

Identification of pupils for the EMR program occurs after the pupils are in school. Teacher referral is the primary method employed. Parents and physicians also occasionally refer children. EMR pupils are involved in the work study program at the high school where the program is definitely vocationally oriented.

Most EMR pupils are not transported although special transportation is arranged where the special education director deems it necessary. Most of the classrooms used in this program were standard classrooms which had been converted for use in this program.

Visually Handicapped

The school district operates three classrooms for visually handicapped students: one at the elementary level, one at the junior high level, and one at the senior high school level. None of them are self-contained classrooms. The junior and senior high school classrooms are considered resource rooms. It was indicated that a satisfactory pupil-teacher ratio would be between 8 and 14 pupils per teacher.

The objectives of the program are very similar to those of the regular school program. Thus, the primary objective of the program is to produce self-reliant young men and women who are able to cope with their handicap in the regular school classroom and in the world in which they live. The necessity of constantly reinforcing the self-confidence and self-esteem of pupils was stressed.

The classroom which we observed had been newly constructed and was designed specifically for teaching visually handicapped pupils. The equipment in the classroom included four primary typewriters, tape recorders, talking book machines, microfilm viewers, large type text books, and braille readers.

Deaf and Hard of Hearing

Auditorily handicapped pupils in this school district are admitted to a nursery school program at the age of three. This is a half day program supported by the school district. The classroom we observed involved six pupils with a teacher and a teacher aide in a self-contained classroom situation. Physical education and art teachers come to the classroom once each week. Equipment in the room included an auditory training device, two hearing aides, an overhead projector, and other visual aides. Deaf students were taught lip reading rather than a sign language.

High school age pupils are admitted to the work-study program. There are definite vocational objectives in the high school program for the deaf students. Special transportation is provided for deaf pupils when it is deemed necessary by the director of special education.

No formal evaluation of the program has been attempted. However, follow-up studies have been conducted by graduate students from a local university.

APPENDIX C

COST AND RELATED DATA, BY PROGRAM, FOR SCHOOL DISTRICTS IN THE SAMPLE

In this appendix we provide detailed cost data for each program provided by the 24 districts which comprised our sample. To avoid invidious cost comparison by those who might be tempted to generalize beyond the limits our research design permits, the school districts are identified only by a code letter, which corresponds to the code letter employed in Chapter III.

District A	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration							
Cler. & Secret.							
Instruction Teachers							
Teacher Aides							
Instructional Support Sup. & Equip.							
Guid. & Coun.							
Other							
Institutional Operations Oper. & Maint.							
Fringe Benefits							
Other							
Services Health							
Food							
Transportation Cost/Pupil in ADM							
TOTAL— Current Operation	482			1,289	2.67	871	1.81
Transportation Cost/Pupil Transported	NR*			NR		NR	
Capital Outlay/ADM	43			43	1.00	43	1.00
Debt Service/ADM	42			42	1.00	42	1.00
Teacher-Pupil Ratio	1:25.9			1:15.9		1:12.7	
Sq. Feet Classroom Space Per Pupil	30			NR		NR	

*Not reported

District A (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL— Current Operation	965	2.00			604	1:25		
Transportation Cost/Pupil Transported	NR				NR			
Capital Outlay/ADM	43				43			
Debt Service/ADM	42				42			
Teacher-Pupil Ratio	1:11				1:62			
Sq. Feet Classroom Space Per Pupil	NR				NR			

District A (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL— Current Operation					938	1.95		
Transportation Cost/Pupil Transported					NR			
Capital Outlay/ADM					43	1.00		
Debt Service/ADM					42	1.00		
Teacher-Pupil Ratio					1:4			
Sq. Feet Classroom Space Per Pupil					NR			

District B	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration							
Cler. & Secret.							
Instruction Teachers							
Teacher Aides							
Instructional Support Sup. & Equip.							
Guid. & Coun.							
Other							
Institutional Operations Oper. & Maint.							
Fringe Benefits							
Other							
Services Health							
Food							
Transportation Cost/Pupil in ADM							
TOTAL— Current Operation	509			708	1.39	636	1.25
Transportation Cost/Pupil Transported							
Capital Outlay/ADM							
Debt Service/ADM							
Teacher-Pupil Ratio	1:20			1:13.7		1:15.6	
Sq. Feet Classroom Space Per Pupil	30			NR		NR	

District B (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL– Current Operation	533	1.05	852	1.67	594	1.17	2362	4.64
Transportation Cost/Pupil Transported								
Capital Outlay/ADM								
Debt Service/ADM								
Teacher-Pupil Ratio	NR		1:11		1.81		NR	
Sq. Feet Classroom Space Per Pupil	NR		NR		NR		NR	

District B (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL— Current Operation			804	1.58	974	1.91		
Transportation Cost/Pupil Transported			NR		NR			
Capital Outlay/ADM			NR		NR			
Debt Service/ADM			NR		NR			
Teacher-Pupil Ratio			1:16.5		1:10			
Sq. Feet Classroom Space Per Pupil			NR		NR			

District C	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management							
Administration	75			75	1.00	75	1.00
Cler. & Secret.	37			37	1.00	37	1.00
Instruction							
Teachers	531			705	1.32	813	1.53
Teacher Aides	8						
Instructional Support							
Sup. & Equip.	20			63	3.15	53	2.65
Guid. & Coun.	29			29	1.00	29	1.00
Other	38			75	1.98	88	2.31
Institutional Operations							
Oper. & Maint.	128			362	2.82	320	1.75
Fringe Benefits	207			222	1.07	247	1.19
Other	17			17	1.00	17	1.00
Services							
Health	16			16	1.00	16	1.00
Food	4			4	1.00	4	1.00
Transportation Cost/Pupil in ADM	4			29	7.25	141	35.25
TOTAL—Current Operation	1114			1634	1.47	1840	1.65
Transportation Cost/Pupil Transported	131			136	1.03	141	1.07
Capital Outlay/ADM	3			3	1.00	3	1.00
Debt Service/ADM	107			107	1.00	107	1.00
Teacher-Pupil Ratio	1:16.6			1:13.3		1:11.1	
Sq. Feet Classroom Space Per Pupil	30			85		75	

District C (cont.)	Hearing		Vision		Speech		Physical —	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration	75	1.00	75	1.00			75	1.00
Cler. & Secret.	37	1.00	37	1.00			37	1.00
Instruction								
Teachers	700	1.31	833	1.56			2085	3.92
Teacher Aides								
Instructional Support								
Sup. & Equip.	123	6.15	131	6.55			120	6.00
Guid. & Coun.	29	1.00	29	1.00			29	1.00
Other	38	1.00	38	1.00			38	1.00
Institutional Operations								
Oper. & Maint.	256	2.00	426	3.32			768	6.00
Fringe Benefits	232	1.12	301	1.45			476	2.29
Other	17	1.00	17	1.00			17	1.00
Services								
Health	16	1.00	16	1.00			16	1.00
Food	4	1.00	4	1.00			4	1.00
Transportation Cost/Pupil in ADM	86	21.50	172	43.00			545	136.25
TOTAL— Current Operation	1613	1.45	2079	1.87			4210	3.78
Transportation Cost/Pupil Transported	172	1.31	172	1.31			545	4.16
Capital Outlay/ADM	3	1.00	3	1.00			3	1.00
Debt Service/ADM	107	1.00	107	1.00			107	1.00
Teacher-Pupil Ratio	1:12		1:9				1:5.5	
Sq. Feet Classroom Space Per Pupil	60		100				180	

District C (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration			75	1.00	75	1.00		
Cler. & Secret.			37	1.00	37	1.00		
Instruction								
Teachers			1085	2.04	665	1.25		
Teacher Aides			78	9.69	181	22.62		
Instructional Support								
Sup. & Equip.			35	1.75	85	4.25		
Guid. & Coun.			29	1.00	29	1.00		
Other			328	8.63	152	4.00		
Institutional Operations								
Oper. & Maint.			300	2.34	382	2.98		
Fringe Benefits			504	2.43	356	1.72		
Other			17	1.00	17	1.00		
Services								
Health			16	1.00	16	1.00		
Food			4	1.00	4	1.00		
Transportation Cost/Pupil in ADM			51	12.75	100	25.00		
TOTAL– Current Operation			2559	2.30	2099	1.88		
Transportation Cost/Pupil Transported			140	1.06	149	1.13		
Capital Outlay/ADM			3	1.00	3	1.00		
Debt Service/ADM			107	1.00	107	1.00		
Teacher-Pupil Ratio			1:7.3		1:11.5			
Sq. Feet Classroom Space Per Pupil			70		90			

District D	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration	29			38	1.39	29	1.00
Cler. & Secret.	10			10	1.00	10	1.00
Instruction Teachers	273			551	2.01	308	1.12
Teacher Aides	4						
Instructional Support Sup. & Equip.	16			24	1.51	24	1.48
Guid. & Coun.	5			5	1.00	5	1.00
Other	13			13	1.00	13	1.00
Institutional Operations Oper. & Maint.	46			153	3.33	92	2.00
Fringe Benefits							
Other	19			19	1.00	19	1.00
Services Health	1			1	1.00	1	1.00
Food	53			53	1.00	53	1.00
Transportation Cost/Pupil in ADM	8			8	1.00	8	1.00
TOTAL— Current Operation	477			875	1.83	562	1.18
Transportation Cost/Pupil Transported	40			40	1.00	40	1.00
Capital Outlay/ADM	2			2	1.00	2	1.00
Debt Service/ADM	78			78	1.00	78	1.00
Teacher-Pupil Ratio	1:23.6			1:12		1:22	
Sq. Feet Classroom Space Per Pupil	30			100		60	

District D (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration					32	1.09		
Cler. & Secret.					10	1.00		
Instruction Teachers					273	1.00		
Teacher Aides								
Instructional Support Sup. & Equip.					17	1.04		
Guid. & Coun.					5	1.00		
Other					84	6.45		
Institutional Operations Oper. & Maint.					50	1.09		
Fringe Benefits								
Other					19	1.00		
Services Health					1	1.00		
Food					53	1.00		
Transportation Cost/Pupil in ADM					8	1.00		
TOTAL— Current Operation					552	1.16		
Transportation Cost/Pupil Transported					40	1.00		
Capital Outlay/ADM					2	1.00		
Debt Service/ADM					78	1.00		
Teacher-Pupil Ratio					1:79.8			
Sq. Feet Classroom Space Per Pupil					900*			

*** Total classroom space.**

District D (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration			179	6.17	51	1.75		
Cler. & Secret.			10	1.00	10	1.00		
Instruction Teachers			945	3.03	590	2.16		
Teacher Aides								
Instructional Support Sup. & Equip.			47	2.95	21	1.30		
Guid. & Coun.			5	1.00	5	1.00		
Other			13	1.00	13	1.00		
Institutional Operations Oper. & Maint.			153	3.33	92	2.00		
Fringe Benefits								
Other			19	1.00	19	1.00		
Services Health			1	1.00	1	1.00		
Food			53	1.00	53	1.00		
Transportation Cost/Pupil in ADM			NR		8	1.00		
TOTAL– Current Operation			1425	2.99	863	1.81		
Transportation Cost/Pupil Transported			NR		40	1.00		
Capital Outlay/ADM			2	1.00	2	1.00		
Debt Service/ADM			78	1.00	78	1.00		
Teacher-Pupil Ratio			1:6		1:10.3			
Sq. Feet Classroom Space Per Pupil			100		60			

District E	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration							
Cler. & Secret.							
Instruction Teachers							
Teacher Aides							
Instructional Support Sup. & Equip.							
Guid. & Coun.							
Other							
Institutional Operations Oper. & Maint.							
Fringe Benefits							
Other							
Services Health							
Food							
Transportation Cost/Pupil in ADM							
TOTAL–Current Operation	889			1012	1.14	2321	2.61
Transportation Cost/Pupil Transported							
Capital Outlay/ADM							
Debt Service/ADM							
Teacher-Pupil Ratio	NR			1:11		1:9	
Sq. Feet Classroom Space Per Pupil				60		60	

District E (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL— Current Operation	1090	1.23	3866	4.35				
Transportation Cost/Pupil Transported								
Capital Outlay/ADM								
Debt Service/ADM								
Teacher-Pupil Ratio	1:9		1:2.4					
Sq. Feet Classroom Space Per Pupil	30		30					

District E (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL— Current Operation					1273	1.43		
Transportation Cost/Pupil Transported								
Capital Outlay/ADM								
Debt Service/ADM								
Teacher-Pupil Ratio					1:8			
Sq. Feet Classroom Space Per Pupil					80			

District F	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration	52			83	1.59		
Cler. & Secret.	18			26	1.43		
Instruction Teachers	336			719	2.13		
Teacher Aides				19	NCFA		
Instructional Support Sup. & Equip.	16			32	1.98		
Guid. & Coun.	9			9	1.00		
Other	12			116	9.66		
Institutional Operations Oper. & Maint.	72			288	4.00		
Fringe Benefits	20			34	1.70		
Other	51			51	1.00		
Services Health	2			2	1.00		
Food	1			1	1.00		
Transportation Cost/Pupil in ADM	11			34	3.09		
TOTAL– Current Operation	600			1414	2.36		
Transportation Cost/Pupil Transported	76			64	.84		
Capital Outlay/ADM	7			7	1.00		
Debt Service/ADM	29			29	1.00		
Teacher-Pupil Ratio	1:24			1:12			
Sq. Feet Classroom Space Per Pupil	30			120			

NCFA–No comparison figure available

	Hearing		Vision		Speech		Physical	
District F (cont.)	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration					56	1.08	182	3.50
Cler. & Secret.					21	1.18	51	2.82
Instruction Teachers					336	1.00	512	1.52
Teacher Aides							436	NCFA
Instructional Support Sup. & Equip.					25	1.59	93	5.80
Guid. & Coun.					9			
Other					131	10.92	526	43.81
Institutional Operations Oper. & Maint.					88	1.22	645	8.96
Fringe Benefits					22	1.10	122	6.10
Other					51	1.00	51	1.00
Services Health					2	1.00	2	1.00
Food					1	1.00	1	1.00
Transportation Cost/Pupil in ADM					11	1.00	102	9.27
TOTAL– Current Operation					753	1.26	2723	4.54
Transportation Cost/Pupil Transported					76	1.00	159	2.09
Capital Outlay/ADM					7	1.00	7	1.00
Debt Service/ADM					29	1.00	29	1.00
Teacher-Pupil Ratio					1:58		1:19.5	
Sq. Feet Classroom Space Per Pupil					2310*		269	

* Total classroom space

District F (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration			416	7.99				
Cler. & Secret.			110	6.09				
Instruction Teachers			3433	10.21				
Teacher Aides								
Instructional Support Sup. & Equip.			128	7.99				
Guid. & Coun.			9	1.00				
Other			1911	159.25				
Institutional Operations Oper. & Maint.			652	9.06				
Fringe Benefits			126	6.30				
Other			51	1.00				
Services Health			2	1.00				
Food			1	1.00				
Transportation Cost/Pupil in ADM			143	13.00				
TOTAL– Current Operation			6982	11.64				
Transportation Cost/Pupil Transported			143	1.88				
Capital Outlay/ADM			7	1.00				
Debt Service/ADM			29	1.00				
Teacher-Pupil Ratio			1:2.7					
Sq. Feet Classroom Space Per Pupil			242					

District G	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration	42	56	1.33	75	1.79	178	4.24
Cler. & Secret.	58	58	1.00	58	1.00	58	1.00
Instruction Teachers	412	412	1.00	945	2.29	998	2.42
Teacher Aides	2	2	1.00			274	136.50
Instructional Support Sup. & Equip.	31	31	1.00	73	2.36	63	2.03
Guid. & Coun.	2	2	1.00	2	1.00	2	1.00
Other	17	17	1.00	17	1.00	17	1.00
Institutional Operations Oper. & Maint.	85	85	1.00	156	1.83	425	5.00
Fringe Benefits	48	48	1.00	72	1.50	120	2.50
Other	48	48	1.00	48	1.00	48	1.00
Services Health	7	7	1.00	7	1.00	7	1.00
Food	21	21	1.00	21	1.00	21	1.00
Transportation Cost/Pupil in ADM	22	22	1.00	215	9.75	418	18.99
TOTAL–Current Operation	795	809	1.02	1689	2.12	2629	3.31
Transportation Cost/Pupil Transported	86	86	1.00	304	3.53	476	5.53
Capital Outlay/ADM	8	8	1.00	8	1.00	8	1.00
Debt Service/ADM							
Teacher-Pupil Ratio	1:24.6	NR		1:11.6		1:10	
Sq. Feet Classroom Space Per Pupil	30	30		55		150	

District G (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration	195	4.64	986	23.48	46	1.09	203	4.82
Cler. & Secret.	58	1.00	58	1.00	58	1.00	58	1.00
Instruction Teachers	2275	5.52	5556	13.48	412	1.00	1176	2.85
Teacher Aides	84	42.00	306	153.00	2	1.00	393	196.50
Instructional Support Sup. & Equip.	153	4.92	191	6.14	31	1.00	132	4.27
Guid. & Coun.	2	1.00	2	1.00	2	1.00	2	1.00
Other	282	16.60	17	1.00	129	7.56	17	1.00
Institutional Operations Oper. & Maint.	612	7.20	755	8.88	99	1.17	453	5.33
Fringe Benefits	202	4.20	425	8.85	55	1.14	194	4.04
Other	48	1.00	48	1.00	48	1.00	48	1.00
Services Health	7	1.00	7	1.00	7	1.00	7	1.00
Food	21	1.00	21	1.00	21	1.00	21	1.00
Transportation Cost/Pupil in ADM	732	33.27	733	33.31	22		667	30.31
TOTAL— Current Operation	4671	5.88	9105	11.45	932	1.17	3371	4.24
Transportation Cost/Pupil Transported	732	8.51	733	8.52	86	1.00	732	8.51
Capital Outlay/ADM	8	1.00	8	1.00	8	1.00	8	1.00
Debt Service/ADM								
Teacher-Pupil Ratio	1:4.5		1:1.8		1.80		1:8.6	
Sq. Feet Classroom Space Per Pupil	206		267		900*		160	

* Total classroom space

District G (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration					135	3.21		
Cler. & Secret.					58	1.00		
Instruction								
Teachers					1231	2.98		
Teacher Aides					5	2.50		
Instructional Support								
Sup. & Equip.					46	1.46		
Guid. & Coun.					2	1.00		
Other					66	3.90		
Institutional Operations								
Oper. & Maint.					340	4.00		
Fringe Benefits					138	2.87		
Other					48	1.00		
Services								
Health					34	4.80		
Food					21	1.00		
Transportation Cost/Pupil in ADM					82	3.72		
TOTAL— Current Operation					2206	2.77		
Transportation Cost/Pupil Transported					470	5.46		
Capital Outlay/ADM					8	1.00		
Debt Service/ADM								
Teacher-Pupil Ratio					1:5.3			
Sq. Feet Classroom Space Per Pupil					120			

District H	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management							
Administration	35			40	1.15	44	1.26
Cler. & Secret.	16			16	1.00	16	1.00
Instruction							
Teachers	313			553	1.76	578	1.84
Teacher Aides	6						
Instructional Support							
Sup. & Equip.	10			49	4.90	53	5.30
Guid. & Coun.	14			23	1.63	25	1.78
Other	1			47	47.00	58	58.00
Institutional Operations							
Oper. & Maint.	44			44	1.00	44	1.00
Fringe Benefits							
Other	4			4	1.00	4	1.00
Services							
Health	5			14	2.86	17	3.31
Food	35			35	1.00	35	1.00
Transportation Cost/Pupil in ADM	1			1	1.00	1	1.00
TOTAL—Current Operation	484			826	1.71	875	1.81
Transportation Cost/Pupil Transported	143			143	1.00	143	1.00
Capital Outlay/ADM	24			24	1.00	24	1.00
Debt Service/ADM	72			72	1.00	72	1.00
Teacher-Pupil Ratio	1:23.4			1:12		1:13	
Sq. Feet Classroom Space Per Pupil	30			30		30	

District H (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration	35	1.00	35	1.00	35	1.00	35	1.00
Cler. & Secret.	16	1.00	16	1.00	16	1.00	16	1.00
Instruction								
Teachers	1020	3.25	1690	5.39	313	1.00	1217	3.88
Teacher Aides					1	1.00		
Instructional Support								
Sup. & Equip.	41	4.10	80	8.00	14	1.40	15	1.50
Guid. & Coun.	47	3.32	84	6.00	16	1.14	77	5.46
Other	66	66.00	71	71.00	513	513.00	251	251.00
Institutional Operations								
Oper. & Maint.	1020	23.20	176	4.00	47	1.05	44	1.00
Fringe Benefits								
Other	4	1.00	4	1.00	4	1.00	4	1.00
Services								
Health	38	7.52	75	15.00	27	5.34	68	13.50
Food	35	1.00	35	1.00	35	1.00	35	1.00
Transportation Cost/Pupil in ADM	NR		1	1.00	1	1.00	1	1.00
TOTAL— Current Operation	2322	4.88	2267	4.68	1027	2.12	1763	3.64
Transportation Cost/Pupil Transported	NR	NR	NR	NR	NR	NR	NR	NR
Capital Outlay/ADM	24	1.00	24	1.00	24	1.00	24	1.00
Debt Service/ADM	72	1.00	72	1.00	72	1.00	72	1.00
Teacher-Pupil Ratio	1:6.6		1:5		1:14.6		1:6	
Sq. Feet Classroom Space Per Pupil	696		120		300*		30	

* Total classroom space

District H (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration					51	1.45		
Cler. & Secret.					16	1.00		
Instruction Teachers					620	1.98		
Teacher Aides								
Instructional Support Sup. & Equip.					21	2.10		
Guid. & Coun.					24	1.67		
Other					40	40.00		
Institutional Operations Oper. & Maint.					92	2.09		
Fringe Benefits								
Other					4	1.00		
Services Health					7	1.40		
Food					35	1.00		
Transportation Cost/Pupil in ADM					1	1.00		
TOTAL— Current Operation					911	1.88		
Transportation Cost/Pupil Transported					143	1.00		
Capital Outlay/ADM					24	1.00		
Debt Service/ADM					72	1.00		
Teacher-Pupil Ratio					1:12.5			
Sq. Feet Classroom Space Per Pupil					62			

District I	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration	25			43	1.70	43	1.70
Cler. & Secret.	9			9	1.00	9	1.00
Instruction Teachers	287			621	2.16	578	2.01
Teacher Aides						72	NCFA
Instructional Support Sup. & Equip.	6			27	4.52	27	4.51
Guid. & Coun.	8			23	2.92	24	3.00
Other	5			56	11.29	56	11.26
Institutional Operations Oper. & Maint.	50			127	2.53	127	2.53
Fringe Benefits							
Other	13			13	1.00	13	1.00
Services Health	2			5	2.30	20	10.00
Food	53			53	1.00	53	1.00
Transportation Cost/Pupil in ADM	10			10	1.00	10	1.00
TOTAL— Current Operation	468			987	2.11	1032	2.21
Transportation Cost/Pupil Transported	36			NR		NR	
Capital Outlay/ADM	6			6	1.00	6	1.00
Debt Service/ADM	73			73	1.00	73	1.00
Teacher-Pupil Ratio	1:23			1:10.7		1:11.5	
Sq. Feet Classroom Space Per Pupil	30			76		76	

District I (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration	123	4.90	89	3.54	25	1.00	50	2.00
Cler. & Secret.	9	1.00	9	1.00	9	1.00	9	1.00
Instruction								
Teachers	1416	4.93	649	2.26	287	1.00	334	1.16
Teacher Aides			215	NCFA				
Instructional Support								
Sup. & Equip.	26	4.33	24	4.00	7	1.22	15	2.50
Guid. & Coun.	96	12.00	65	8.17	10	1.24	31	3.82
Other	193	38.60	94	18.89	69	13.87	68	13.50
Institutional Operations								
Oper. & Maint.	200	4.00	150	3.00	56	1.12	128	2.56
Fringe Benefits								
Other	13	1.00	13	1.00	13	1.00	13	1.00
Services								
Health	2	1.00	19	9.69	2	1.00	2	1.00
Food	53	1.00	53	1.00	53	1.00	53	1.00
Transportation Cost/Pupil in ADM	10	1.00	10	1.00	10	1.00	10	1.00
TOTAL— Current Operation	2141	4.57	1390	2.97	541	1.16	713	1.52
Transportation Cost/Pupil Transported	NR		NR		NR		NR	
Capital Outlay/ADM	6	1.00	6	1.00	6	1.00	6	1.00
Debt Service/ADM	73	1.00	73	1.00	73	1.00	73	1.00
Teacher-Pupil Ratio	1:5		1:11.5		1:88		1:19.5	
Sq. Feet Classroom Space Per Pupil	120		90		140*		77	

* Total classroom space

District I (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration					36	1.44		
Cler. & Secret.					9	1.00		
Instruction								
Teachers					781	2.71		
Teacher Aides								
Instructional Support								
Sup. & Equip.					18	2.96		
Guid. & Coun.					18	2.25		
Other					41	8.18		
Institutional Operations								
Oper. & Maint.					107	2.13		
Fringe Benefits								
Other					13	1.00		
Services								
Health					24	12.00		
Food					53	1.00		
Transportation Cost/Pupil in ADM					10	1.00		
TOTAL— Current Operation					1110	2.37		
Transportation Cost/Pupil Transported					NR			
Capital Outlay/ADM					6	1.00		
Debt Service/ADM					73	1.00		
Teacher-Pupil Ratio					1:12.7			
Sq. Feet Classroom Space Per Pupil					64			

District J	Regular Program Cost/Pupil	Gifted Cost/Pupil	Gifted Cost Differential	EMR Cost/Pupil	EMR Cost Differential	TMR Cost/Pupil	TMR Cost Differential
Management Administration	59			131	2.22	146	2.47
Cler. & Secret.	21			21	1.00	21	1.00
Instruction Teachers	470			745	1.58	380	.80
Teacher Aides	17					237	13.96
Instructional Support Sup. & Equip.	46			54	1.17	242	5.25
Guid. & Coun.	19			31	1.64	19	1.00
Other	3			29	9.56	3	1.00
Institutional Operations Oper. & Maint.	103			227	2.20	343	3.33
Fringe Benefits	25			30	1.20	70	2.80
Other	7			7	1.00	7	1.00
Services Health	2			18	9.00	2	1.00
Food	16			16	1.00	16	1.00
Transportation Cost/Pupil in ADM	72			103	1.43	215	2.98
TOTAL— Current Operation	860			1412	1.64	1701	1.98
Transportation Cost/Pupil Transported	100			143	1.43	332	3.32
Capital Outlay/ADM	15			15	1.00	15	1.00
Debt Service/ADM	145			145	1.00	145	1.00
Teacher-Pupil Ratio	1:16.9			1:12.4		1:17	
Sq. Feet Classroom Space Per Pupil	30			66		100	

District J (cont.)	Hearing Cost/Pupil	Hearing Cost Differential	Vision Cost/Pupil	Vision Cost Differential	Speech Cost/Pupil	Speech Cost Differential	Physical Cost/Pupil	Physical Cost Differential
Management Administration					64	1.08		
Cler. & Secret.					21	1.00		
Instruction Teachers					470	1.00		
Teacher Aides								
Instructional Support Sup. & Equip.					47	1.02		
Guid. & Coun.					19	1.00		
Other					90	30.00		
Institutional Operations Oper. & Maint.					118	1.14		
Fringe Benefits					28	1.12		
Other					7	1.00		
Services Health					2	1.00		
Food					16	1.00		
Transportation Cost/Pupil in ADM					72	1.00		
TOTAL— Current Operation					954	1.11		
Transportation Cost/Pupil Transported					100	1.00		
Capital Outlay/ADM					15	1.00		
Debt Service/ADM					145	1.00		
Teacher-Pupil Ratio					1:79			
Sq. Feet Classroom Space Per Pupil					360*			

* Total classroom space

District J (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration			428	7.25	164	2.78		
Cler. & Secret.			21	1.00	21	1.00		
Instruction Teachers			2086	4.43	649	1.38		
Teacher Aides								
Instructional Support Sup. & Equip.			128	2.77	53	1.15		
Guid. & Coun.			19	1.00	19	1.00		
Other			341	113.50	99	33.00		
Institutional Operations Oper. & Maint.			573	5.56	343	3.33		
Fringe Benefits			71	2.84	29	1.16		
Other			7	1.00	7	1.00		
Services Health			2	1.00	2	1.00		
Food			16	1.00	16	1.00		
Transportation Cost/Pupil in ADM			332	4.61	146	2.02		
TOTAL– Current Operation			4019	4.67	1548	1.80		
Transportation Cost/Pupil Transported			332	3.32	146	1.46		
Capital Outlay/ADM			15	1.00	15	1.00		
Debt Service/ADM			145	1.00	145	1.00		
Teacher-Pupil Ratio			1:4		1:14			
Sq. Feet Classroom Space Per Pupil			167		100			

District K	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management							
Administration	58	76	1.31	77	1.33	77	1.33
Cler. & Secret.	30	33	1.10	33	1.10	33	1.10
Instruction							
Teachers	398	556	1.40	580	1.46	559	1.40
Teacher Aides							
Instructional Support							
Sup. & Equip.	22	24	1.14	25	1.14	25	1.14
Guid. & Coun.	20	20	1.00	77	3.85	76	3.80
Other	11	11	1.00	11	1.00	11	1.00
Institutional Operations							
Oper. & Maint.	63	63	1.00	63	1.00	63	1.00
Fringe Benefits	37	37	1.00	37	1.00	37	1.00
Other	8	8	1.00	8	1.00	8	1.00
Services							
Health	1	1	1.00	1	1.00	1	1.00
Food	1	1	1.00	1	1.00	1	1.00
Transportation Cost/Pupil in ADM	4	4	1.00	20	5.00	20	5.00
TOTAL—Current Operation	653	834	1.28	933	1.43	911	1.40
Transportation Cost/Pupil Transported	37	37	1.00	37	1.00	37	1.00
Capital Outlay/ADM	36	36	1.00	36	1.00	36	1.00
Debt Service/ADM	25	25	1.00	25	1.00	25	1.00
Teacher-Pupil Ratio	NR	1:17.2		1:15.9		1:16.4	
Sq. Feet Classroom Space Per Pupil	30	NR		NR		NR	

District K (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration	83	1.43	80	1.38	67	1.16	82	1.41
Cler. & Secret.	34	1.13	34	1.13	31	1.03	34	1.13
Instruction								
Teachers	747	1.88	669	1.68	398	1.00	729	1.83
Teacher Aides								
Instructional Support								
Sup. & Equip.	26	1.18	25	1.14	23	1.05	26	1.18
Guid. & Coun.	94	4.70	86	4.30	46	2.30	92	4.60
Other	11	1.00	11	1.00	280	25.45	11	1.00
Institutional Operations								
Oper. & Maint.	63	1.00	63	1.00	63	1.00	63	1.00
Fringe Benefits	37	1.00	37	1.00	37	1.00	37	1.00
Other	8	1.00	8	1.00	8	1.00	8	1.00
Services								
Health	1	1.00	1	1.00	1	1.00	1	1.00
Food	1	1.00	1	1.00	1	1.00	1	1.00
Transportation Cost/Pupil in ADM	20	5.00	20	5.00	4	1.00	37	9.13
TOTAL— Current Operation	1125	1.72	1035	1.58	959	1.47	1121	1.72
Transportation Cost/Pupil Transported	37	1.00	37	1.00	37	1.00	37	1.00
Capital Outlay/ADM	36	1.00	36	1.00	36	1.00	36	1.00
Debt Service/ADM	25	1.00	25	1.00	25	1.00	25	1.00
Teacher-Pupil Ratio	1:12.3		1:13.8		1:34.7		1:12.6	
Sq. Feet Classroom Space Per Pupil	NR		NR		NR		NR	

District K (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration			94	1.62	77	1.33		
Cler. & Secret.			36	1.20	33	1.10		
Instruction								
Teachers			1071	2.69	559	1.40		
Teacher Aides								
Instructional Support								
Sup. & Equip.			27	1.23	25	1.14		
Guid. & Coun.			127	6.35	76	3.80		
Other			11	1.00	11	1.00		
Institutional Operations								
Oper. & Maint.			63	1.00	63	1.00		
Fringe Benefits			37	1.00	37	1.00		
Other			8	1.00	8	1.00		
Services								
Health			1	1.00	1	1.00		
Food			1	1.00	1	1.00		
Transportation								
Cost/Pupil in ADM			20	5.00	20	5.00		
TOTAL–								
Current Operation			1496	2.29	911	1.40		
Transportation								
Cost/Pupil Transported			37	1.00	37	1.00		
Capital Outlay/ADM			36	1.00	36	1.00		
Debt Service/ADM			25	1.00	25	1.00		
Teacher-Pupil Ratio			1:8.5		1:16.4			
Sq. Feet Classroom Space Per Pupil			NR		NR			

District L	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management							
Administration	53			87	1.64		
Cler. & Secret.	50			61	1.22		
Instruction							
Teachers	367			762	2.02		
Teacher Aides							
Instructional Support							
Sup. & Equip.	36			77	2.13		
Guid. & Coun.	15			21	1.37		
Other	17			105	6.18		
Institutional Operations							
Oper. & Maint.	112			216	1.93		
Fringe Benefits	34			50	1.47		
Other	24			24	1.00		
Services							
Health	8			11	1.31		
Food	52			52	1.00		
Transportation Cost/Pupil in ADM	15			57	3.80		
TOTAL—Current Operation	783			1523	1.94		
Transportation Cost/Pupil Transported	51			60	1.17		
Capital Outlay/ADM	18			18	1.00		
Debt Service/ADM	42			42	1.00		
Teacher-Pupil Ratio	1:24			1:12.6			
Sq. Feet Classroom Space Per Pupil	30			58			

District L (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration					59	1.12	82	1.54
Cler. & Secret.					54	1.08	50	1.00
Instruction Teachers					376	1.00	774	2.05
Teacher Aides							411	NCFA
Instructional Support Sup. & Equip.					42	1.18	101	2.80
Guid. & Coun.					18	1.20	19	1.25
Other					182	10.68	29	1.71
Institutional Operations Oper. & Maint.					140	1.24	746	6.66
Fringe Benefits					41	1.20	139	4.08
Other					24	1.00	24	1.00
Services Health					9	1.12	10	1.21
Food					52	1.00	52	1.00
Transportation Cost/Pupil in ADM					15	1.00	462	30.80
TOTAL— Current Operation					1012	1.29	2899	3.70
Transportation Cost/Pupil Transported					51	1.00	462	9.04
Capital Outlay/ADM					18	1.00	18	1.00
Debt Service/ADM					42	1.00	42	1.00
Teacher-Pupil Ratio					1:65		1:10.4	
Sq. Feet Classroom Space Per Pupil					3400*		200	

* Total Classroom space

District L (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration			86	1.62	107	2.01		
Cler. & Secret.			61	1.22	50	1.00		
Instruction								
Teachers			811	2.15	1150	3.05		
Teacher Aides					225	NCFA		
Instructional Support								
Sup. & Equip.			67	1.85	81	2.25		
Guid. & Coun.			26	1.73	15	1.00		
Other			110	6.46	24	1.42		
Institutional Operations								
Oper. & Maint.			175	1.56	586	5.23		
Fringe Benefits			56	1.64	119	3.50		
Other			24	1.00	24	1.00		
Services								
Health			10	1.30	12	1.44		
Food			52	1.00	52	1.00		
Transportation Cost/Pupil in ADM			15	1.00	429	28.57		
TOTAL— Current Operation			1493	1.91	2874	3.67		
Transportation Cost/Pupil Transported			51	1.00	429	8.41		
Capital Outlay/ADM			18	1.00	18	1.00		
Debt Service/ADM			42	1.00	42	1.00		
Teacher-Pupil Ratio			1:11.4		1:7			
Sq. Feet Classroom Space Per Pupil			47		157			

District M	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration	34			73	2.13	72	2.10
Cler. & Secret.	35			91	2.59	60	1.71
Instruction Teachers	319			566	1.77	538	1.68
Teacher Aides	4			24	6.00	78	19.39
Instructional Support Sup. & Equip.	36			82	2.27	82	2.27
Guid. & Coun.	11			27	2.43	11	1.00
Other	35			121	3.47	152	4.34
Institutional Operations Oper. & Maint.	99			198	2.00	198	2.00
Fringe Benefits	23			42	1.82	45	1.95
Other	56			56	1.00	56	1.00
Services Health	NR			5	NCFA	5	NCFA
Food	22			43	1.93	41	1.88
Transportation Cost/Pupil in ADM	16			215	13.43	212	13.25
TOTAL— Current Operation	690			1543	2.24	1550	2.25
Transportation Cost/Pupil Transported	142			245	1.72	347	2.44
Capital Outlay/ADM	18			18	1.00	18	1.00
Debt Service/ADM	111			111	1.00	111	1.00
Teacher-Pupil Ratio	1:24			1:13		1:14	
Sq. Feet Classroom Space Per Pupil	30			60		60	

NCFA - No comparison figure available

	Hearing		Vision		Speech		Physical	
District M (cont.)	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration	90	2.65	91	2.67	40	1.16	60	1.76
Cler. & Secret.	76	2.18	82	2.33	37	1.07	82	2.35
Instruction								
Teachers	917	2.87	991	3.10	319	1.00	450	1.41
Teacher Aides	56	14.09			4	1.00	314	78.47
Instructional Support								
Sup. & Equip.	72	2.00	100	2.77	36	1.00	45	1.25
Guid. & Coun.	22	2.00	37	3.34	11	1.00	19	1.77
Other	152	4.33	95	2.72	117	3.35	699	19.97
Institutional Operations								
Oper. & Maint.	337	3.40	320	3.23	110	1.11	231	2.33
Fringe Benefits	49	2.13	37	1.60	25	1.08	79	3.43
Other	56	1.00	56	1.00	56	1.00	56	1.00
Services								
Health	3	NCFA					4	NCFA
Food	49	2.24	53	2.40	22	1.00	39	1.77
Transportation Cost/Pupil in ADM	228	14.25	379	23.68	16	1.00	328	20.50
TOTAL– Current Operation	2107	3.05	2241	3.25	793	1.15	2406	3.49
Transportation Cost/Pupil Transported	387	2.72	569	4.00	142	1.00	359	2.52
Capital Outlay/ADM	18	1.00	18	1.00	18	1.00	18	1.00
Debt Service/ADM	111	1.00	111	1.00	111	1.00	111	1.00
Teacher-Pupil Ratio	1:9		1:9		1:90		1:20	
Sq. Feet Classroom Space Per Pupil	102		97		4200*		70	

* Total classroom area

District M (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration			76	2.23	107	3.15	77	2.25
Cler. & Secret.			90	2.57	91	2.60	77	2.20
Instruction Teachers			535	1.67	1021	3.20	647	2.02
Teacher Aides			52	13.07			267	64.30
Instructional Support Sup. & Equip.			41	1.14	115	3.20	36	1.00
Guid. & Coun.			15	1.37	11	1.00	11	1.00
Other			137	3.91	129	3.69	368	10.52
Institutional Operations Oper. & Maint.			280	2.83	234	2.36	99	1.00
Fringe Benefits			47	2.04	49	2.13	76	3.30
Other			56	1.00	56	1.00	56	1.00
Services Health			4	NCFA	4	NCFA		
Food			35	1.57	48	2.16	47	2.13
Transportation Cost/Pupil in ADM			115	7.18	234	14.62	284	17.75
TOTAL— Current Operation			1483	2.15	2099	3.04	2045	2.96
Transportation Cost/Pupil Transported			302	2.12	256	1.80	365	2.57
Capital Outlay/ADM			18	1.00	18	1.00	18	1.00
Debt Service/ADM			111	1.00	111	1.00	111	1.00
Teacher-Pupil Ratio			1:12		1:7		1:12	
Sq. Feet Classroom Space Per Pupil			85		71		30	

District N	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration	40	40	1.00	64	1.60	87	2.17
Cler. & Secret.	34	34	1.00	46	1.36	66	1.93
Instruction Teachers	320	320	1.00	490	1.53	785	2.45
Teacher Aides	1	1	1.00			53	53.00
Instructional Support Sup. & Equip.	19	19	1.00	21	1.11	26	1.35
Guid. & Coun.	8	8	1.00	29	3.58	8	1.00
Other	3	3	1.00	28	9.28	3	1.00
Institutional Operations Oper. & Maint.	54	54	1.00	81	1.50	81	1.50
Fringe Benefits	43	43	1.00	63	1.46	90	2.09
Other	168	168	1.00	168	1.00	168	1.00
Services Health	2	2	1.00	2	1.00	2	1.00
Food	30	30	1.00	30	1.00	30	1.00
Transportation Cost/Pupil in ADM	12	12	1.00	12	1.00	12	1.00
TOTAL– Current Operation	734	734	1.00	1034	1.41	1411	1.92
Transportation Cost/Pupil Transported	25	25	1.00	25	1.00	25	1.00
Capital Outlay/ADM	28	28	1.00	28	1.00	28	1.00
Debt Service/ADM	43	43	1.00	43	1.00	43	1.00
Teacher-Pupil Ratio	1:24	NR		1:14.5		1:9.4	
Sq. Feet Classroom Space Per Pupil	NR	NR		45		45	

District N (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration					40	1.00		
Cler. & Secret.					34	1.00		
Instruction Teachers					320	1.00		
Teacher Aides					7	7.00		
Instructional Support Sup. & Equip.					20	1.04		
Guid. & Coun.					8	1.00		
Other					59	19.81		
Institutional Operations Oper. & Maint.					54	1.00		
Fringe Benefits					45	1.04		
Other					168	1.00		
Services Health					2	1.00		
Food					30	1.00		
Transportation Cost/Pupil in ADM					12	1.00		
TOTAL— Current Operation					799	1.09		
Transportation Cost/Pupil Transported					25	1.00		
Capital Outlay/ADM					28	1.00		
Debt Service/ADM					43	1.00		
Teacher-Pupil Ratio					1:131			
Sq. Feet Classroom Space Per Pupil					NR			

District N (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration					40	1.00	40	1.00
Cler. & Secret.					34	1.00	34	1.00
Instruction Teachers					1214	3.79	738	2.30
Teacher Aides					208	208.00	250	250.00
Instructional Support Sup. & Equip.					79	4.17	55	2.89
Guid. & Coun.					8	1.00	8	1.00
Other					3	1.00	3	1.00
Institutional Operations Oper. & Maint.					108	2.00	378	7.00
Fringe Benefits					152	3.53	119	2.76
Other					168	1.00	168	1.00
Services Health					2	1.00	2	1.00
Food					30	1.00	30	1.00
Transportation Cost/Pupil in ADM					12	1.00	12	1.00
TOTAL– Current Operation					2058	2.80	1837	2.50
Transportation Cost/Pupil Transported					25	1.00	25	1.00
Capital Outlay/ADM					28	1.00	28	1.00
Debt Service/ADM					43	1.00	43	1.00
Teacher-Pupil Ratio					1:6		1:10	
Sq. Feet Classroom Space Per Pupil					60		210	

District O	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management							
Administration	41					153	3.47
Cler. & Secret.	15					15	1.00
Instruction							
Teachers	322					119	3.47
Teacher Aides							
Instructional Support							
Sup. & Equip.	25					35	1.40
Guid. & Coun.	13					13	1.00
Other	1					1	1.00
Institutional Operations							
Oper. & Maint.	71					138	1.94
Fringe Benefits	4					8	2.00
Other	43					43	1.00
Services							
Health	5					5	1.00
Food	1					1	1.00
Transportation Cost/Pupil in ADM	8					22	2.75
TOTAL— Current Operation	549					1553	2.83
Transportation Cost/Pupil Transported	56					39	.69
Capital Outlay/ADM	2					2	1.00
Debt Service/ADM	76					76	1.00
Teacher-Pupil Ratio	1:22.1					1:7.6	
Sq. Feet Classroom Space Per Pupil	30					58	

District O (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration					47	1.13		
Cler. & Secret.					15	1.00		
Instruction								
Teachers					322	1.00		
Teacher Aides								
Instructional Support								
Sup. & Equip.					27	1.07		
Guid. & Coun.					13	1.00		
Other					77	77.00		
Institutional Operations								
Oper. & Maint.					76	1.07		
Fringe Benefits					5	1.02		
Other					43	1.00		
Services								
Health					5	1.00		
Food					1	1.00		
Transportation Cost/Pupil in ADM					8	1.00		
TOTAL– Current Operation					639	1.16		
Transportation Cost/Pupil Transported					56	1.00		
Capital Outlay/ADM					2	1.00		
Debt Service/ADM					76	1.00		
Teacher-Pupil Ratio					1:90.4			
Sq. Feet Classroom Space Per Pupil					60*			

* Total classroom space

District O (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration			354	8.62	53	1.28		
Cler. & Secret.			15	1.00	15	1.00		
Instruction								
Teachers			862	2.67	575	1.78		
Teacher Aides								
Instructional Support								
Sup. & Equip.			27	1.08	27	1.08		
Guid. & Coun.			13	1.00	13	1.00		
Other			1	1.00	1	1.00		
Institutional Operations								
Oper. & Maint.			213	3.00	89	2.06		
Fringe Benefits			9	2.25	5	1.25		
Other			43	1.00	43	1.00		
Services								
Health			5	1.00	5	1.00		
Food			1	1.00	1	1.00		
Transportation Cost/Pupil in ADM			20	2.50	23	2.87		
TOTAL– Current Operation			1563	2.85	850	1.55		
Transportation Cost/Pupil Transported			39	.69	39	.69		
Capital Outlay/ADM			2	1.00	2	1.00		
Debt Service/ADM			76	1.00	76	1.00		
Teacher-Pupil Ratio			1:8		1:12.5			
Sq. Feet Classroom Space Per Pupil			90		62			

District P	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management							
Administration	**43**			**81**	**1.87**	**104**	**2.42**
Cler. & Secret.	**26**			**26**	**1.00**	**26**	**1.00**
Instruction							
Teachers	**415**			**678**	**1.63**	**629**	**1.51**
Teacher Aides						**119**	**NCFA**
Instructional Support							
Sup. & Equip.	**29**			**38**	**1.31**	**141**	**4.87**
Guid. & Coun.	**17**			**17**	**1.00**	**17**	**1.00**
Other	**16**			**62**	**3.87**	**97**	**6.04**
Institutional Operations							
Oper. & Maint.	**68**			**283**	**4.16**	**283**	**4.16**
Fringe Benefits	**141**			**219**	**1.55**	**260**	**1.84**
Other	**52**			**52**	**1.00**	**52**	**1.00**
Services							
Health	**12**			**18**	**1.46**	**52**	**4.29**
Food	**8**			**8**	**1.00**	**8**	**1.00**
Transportation Cost/Pupil in ADM	**1**			**163**	**163.00**	**290**	**290.00**
TOTAL– Current Operation	**828**			**1645**	**1.99**	**2078**	**2.51**
Transportation Cost/Pupil Transported	**129**			**290**	**2.24**	**290**	**2.24**
Capital Outlay/ADM	**8**			**8**	**1.00**	**8**	**1.00**
Debt Service/ADM	**2**			**2**	**1.00**	**2**	**1.00**
Teacher-Pupil Ratio	**1:21**			**1:12**		**1:13**	
Sq. Feet Classroom Space Per Pupil	**30**			**125**		**125**	

NCFA - No comparison figure available

District P (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration	176	4.10	43	1.00	52	1.20	304	7.06
Cler. & Secret.	26	1.00	26	1.00	26	1.00	26	1.00
Instruction								
Teachers	823	1.98	1232	2.96	415	1.00	651	1.56
Teacher Aides							45	NCFA
Instructional Support								
Sup. & Equip.	46	1.59	115	3.95	30	1.02	35	1.19
Guid. & Coun.	17	1.00	17	1.00	17	1.00	17	1.00
Other	526	32.89	16	1.00	130	8.11	154	9.65
Institutional Operations								
Oper. & Maint.	201	2.96	68	1.00	81	1.19	136	2.00
Fringe Benefits	387	2.74	297	2.10	163	1.15	296	2.09
Other	52	1.00	52	1.00	52	1.00	52	1.00
Services								
Health	12	1.00	33	2.70	12	1.00	100	8.35
Food	8	1.00	8	1.00	8	1.00	8	1.00
Transportation Cost/Pupil in ADM	145	145.00	290	290.00	1		142	
TOTAL— Current Operation	2419	2.92	2197	2.65	987	1.19	1966	2.37
Transportation Cost/Pupil Transported	290	2.24	290	2.24	129	1.00	290	2.24
Capital Outlay/ADM	8	1.00	8	1.00	8	1.00	8	1.00
Debt Service/ADM	2	1.00	2	1.00	2	1.00	2	1.00
Teacher-Pupil Ratio	1:9		1:8		1:60		1:13	
Sq. Feet Classroom Space Per Pupil	89		30		1600*		60	

* Total classroom space

District P (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration			231	5.36				
Cler. & Secret.			26	1.00				
Instruction								
Teachers			1220	2.93				
Teacher Aides			390	NCFA				
Instructional Support								
Sup. & Equip.			68	2.33				
Guid. & Coun.			17	1.00				
Other			397	24.82				
Institutional Operations								
Oper. & Maint.			226	3.33				
Fringe Benefits			541	3.83				
Other			52	1.00				
Services								
Health			12	1.00				
Food			8	1.00				
Transportation Cost/Pupil in ADM			290	290.00				
TOTAL— Current Operation			3478	4.20				
Transportation Cost/Pupil Transported			290	2.24				
Capital Outlay/ADM			8	1.00				
Debt Service/ADM			2	1.00				
Teacher-Pupil Ratio			1:8					
Sq. Feet Classroom Space Per Pupil			100					

District Q	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management							
Administration	24	72	2.99	31	1.30	59	2.43
Cler. & Secret.	18	18	1.00	18	1.00	18	1.00
Instruction							
Teachers	281	281	1.00	598	1.25	545	1.93
Teacher Aides	4	4	1.00				
Instructional Support							
Sup. & Equip.	14	15	1.05	15	1.09	26	1.87
Guid. & Coun.	9	9	1.00	9	1.00	9	1.00
Other	13	13	1.00	19	1.46	13	1.00
Institutional Operations							
Oper. & Maint.	48	67	1.39	141	2.94	128	2.66
Fringe Benefits							
Other	49	49	1.00	49	1.00	49	1.00
Services							
Health	5	5	1.00	5	1.00	5	1.00
Food	14	14	1.00	14	1.00	14	1.00
Transportation Cost/Pupil in ADM	1	1	1.00	11	11.00	46	46.00
TOTAL— Current Operation	480	548	1.14	910	1.90	912	1.90
Transportation Cost/Pupil Transported	23	23	1.00	112	4.86	112	4.86
Capital Outlay/ADM	15	15	1.00	15	1.00	15	1.00
Debt Service/ADM	21	21	1.00	21	1.00	21	1.00
Teacher-Pupil Ratio	1:23.6	NR		1:13		1:14	
Sq. Feet Classroom Space Per Pupil	30	42		88		80	

District Q (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration	44	1.83	44	1.83	25	1.06	41	1.68
Cler. & Secret.	18	1.00	18	1.00	18	1.00	18	1.00
Instruction								
Teachers	973	3.46	1054	3.65	281	1.00	874	3.10
Teacher Aides								
Instructional Support								
Sup. & Equip.	88	6.28	63	4.49	15	1.04	67	4.79
Guid. & Coun.	9	1.00	9	1.00	9	1.00	9	1.00
Other	30	2.30	42	3.26	73	5.61	38	2.92
Institutional Operations								
Oper. & Maint.	1234	9.40	541	9.40	56	1.15	451	9.40
Fringe Benefits								
Other	49	1.00	49	1.00	49	1.00	49	1.00
Services								
Health	5	1.00	5	1.00	5	1.00	5	1.00
Food	14	1.00	14	1.00	14	1.00	14	1.00
Transportation Cost/Pupil in ADM	261	261.00	302	302.00	1	1.00	547	547.00
TOTAL— Current Operation	2725	5.68	2141	4.46	546	1.14	2113	4.40
Transportation Cost/Pupil Transported	261	11.34	302	13.13	23	1.00	547	23.78
Capital Outlay/ADM	15	1.00	15	1.00	15	1.00	15	1.00
Debt Service/ADM	21	1.00	21	1.00	21	1.00	21	1.00
Teacher-Pupil Ratio	1:8		1:8		1:105		1:9.5	
Sq. Feet Classroom Space Per Pupil	282		282		6000 *		282	

* Total classroom area

District Q (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration					**55**	**2.30**		
Cler. & Secret.					**18**	**1.00**		
Instruction								
Teachers					**1551**	**5.52**		
Teacher Aides								
Instructional Support								
Sup. & Equip.					**45**	**3.24**		
Guid. & Coun.					**9**	**1.00**		
Other					**84**	**6.46**		
Institutional Operations								
Oper. & Maint.					**228**	**4.76**		
Fringe Benefits								
Other					**49**	**1.00**		
Services								
Health					**5**	**1.00**		
Food					**14**	**1.00**		
Transportation Cost/Pupil in ADM					**437**	**437.00**		
TOTAL– Current Operation					**2495**	**5.20**		
Transportation Cost/Pupil Transported					**547**	**23.78**		
Capital Outlay/ADM					**15**	**1.00**		
Debt Service/ADM					**21**	**1.00**		
Teacher-Pupil Ratio					**1:5**			
Sq. Feet Classroom Space Per Pupil					**143**			

District R	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration							
Cler. & Secret.							
Instruction Teachers							
Teacher Aides							
Instructional Support Sup. & Equip.							
Guid. & Coun.							
Other							
Institutional Operations Oper. & Maint.							
Fringe Benefits							
Other							
Services Health							
Food							
Transportation Cost/Pupil in ADM							
TOTAL— Current Operation	656			1342	2.05	1755	2.68
Transportation Cost/Pupil Transported	NR			NR		NR	
Capital Outlay/ADM	NR			NR		NR	
Debt Service/ADM	NR			NR		NR	
Teacher-Pupil Ratio	NR			1:15		1:10	
Sq. Feet Classroom Space Per Pupil	30			NR		NR	

District R (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL— Current Operation	1873	2.86	1612	2.46	848	1.29	1308	1.99
Transportation Cost/Pupil Transported	NR		NR		NR		NR	
Capital Outlay/ADM	NR		NR		NR		NR	
Debt Service/ADM	NR		NR		NR		NR	
Teacher-Pupil Ratio	1:8		1:9		1:137		1:13	
Sq. Feet Classroom Space Per Pupil	NR		NR		NR		NR	

District R (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL— Current Operation			3904	5.95	1569	2.39		
Transportation Cost/Pupil Transported			NR		NR			
Capital Outlay/ADM			NR		NR			
Debt Service/ADM			NR		NR			
Teacher-Pupil Ratio			1:4		1:11			
Sq. Feet Classroom Space Per Pupil			NR		NR			

District S	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration							
Cler. & Secret.							
Instruction Teachers							
Teacher Aides							
Instructional Support Sup. & Equip.							
Guid. & Coun.							
Other							
Institutional Operations Oper. & Maint.							
Fringe Benefits							
Other							
Services Health							
Food							
Transportation Cost/Pupil in ADM							
TOTAL— Current Operation	704					1791	2.54
Transportation Cost/Pupil Transported	NR					NR	
Capital Outlay/ADM	NR					NR	
Debt Service/ADM	NR					NR	
Teacher-Pupil Ratio	NR					1:12	
Sq. Feet Classroom Space Per Pupil	NR					122	

District S (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL— Current Operation	2021	2.87	2249	3.19	900	1.28		
Transportation Cost/Pupil Transported	NR		NR		NR			
Capital Outlay/ADM	NR		NR		NR			
Debt Service/ADM	NR		NR		NR			
Teacher-Pupil Ratio	1:8		1:9		1:56			
Sq. Feet Classroom Space Per Pupil	50		NR		NR			

District S (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL– Current Operation			1371	1.95	2622	3.72	1339	1.90
Transportation Cost/Pupil Transported			NR		NR		NR	
Capital Outlay/ADM			NR		NR		NR	
Debt Service/ADM			NR		NR		NR	
Teacher-Pupil Ratio			1:10.6		1:11		1:44	
Sq. Feet Classroom Space Per Pupil			73		484		112	

District T	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management							
Administration	47			62	1.32	62	1.29
Cler. & Secret.	18			18	1.00	18	1.00
Instruction							
Teachers	358			454	1.26	309	.86
Teacher Aides	5			11	2.20	86	17.20
Instructional Support							
Sup. & Equip.	15			19	1.28	32	2.14
Guid. & Coun.	9			9	1.00	9	1.00
Other	34			34	1.00	34	1.00
Institutional Operations							
Oper. & Maint.	49			119	2.43	70	1.43
Fringe Benefits	18			26	1.44	34	1.88
Other	27			27	1.00	27	1.00
Services							
Health	1			1	1.00	1	1.00
Food	7			7	1.00	7	1.00
Transportation Cost/Pupil in ADM	27			124	4.59	321	11.88
TOTAL— Current Operation	615			911	1.48	1010	1.64
Transportation Cost/Pupil Transported	82			218	2.65	347	4.23
Capital Outlay/ADM	38			38	1.00	38	1.00
Debt Service/ADM	64			64	1.00	64	1.00
Teacher-Pupil Ratio	1:27			1:15		1:17	
Sq. Feet Classroom Space Per Pupil	30			73		43	

District T (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration	296	6.29	65	1.38	50	1.07	64	1.35
Cler. & Secret.	18	1.00	18	1.00	18	1.00	18	1.00
Instruction								
Teachers	1189	3.34	836		358	1.00	380	1.06
Teacher Aides	104	20.80			5	1.00	177	35.37
Instructional Support								
Sup. & Equip.	58	3.85	40	2.64	16	1.06	41	2.72
Guid. & Coun.	9	1.00	9	1.00	9	1.00	9	1.00
Other	34	1.00	34	1.00	122	3.58	34	1.00
Institutional Operations								
Oper. & Maint.	310	6.33	176	3.60	63	1.28	312	6.36
Fringe Benefits	91	5.05	40	2.22	22	1.22	79	4.38
Other	27	1.00	27	1.00	27	1.00	27	1.00
Services								
Health	1	1.00	1	1.00	1	1.00	1	1.00
Food	7	1.00	7	1.00	7	1.00	7	1.00
Transportation Cost/Pupil in ADM	142	5.25	143	5.29	27	1.00	243	9.00
TOTAL— Current Operation	2286	3.72	1396	2.27	725	1.18	1392	2.26
Transportation Cost/Pupil Transported	191	2.32	256	3.12	82	1.00	243	2.96
Capital Outlay/ADM	38	1.00	38	1.00	38	1.00	38	1.00
Debt Service/ADM	64	1.00	64	1.00	64	1.00	64	1.00
Teacher-Pupil Ratio	1:4.3		1:8		1:65.5		1:13.5	
Sq. Feet Classroom Space Per Pupil	190		108		310*		191	

* Total classroom space

District T (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration			99	2.09				
Cler. & Secret.			18	1.00				
Instruction								
Teachers			1565	4.37				
Teacher Aides								
Instructional Support								
Sup. & Equip.			78	5.23				
Guid. & Coun.			9	1.00				
Other			34	1.00				
Institutional Operations								
Oper. & Maint.			603	12.30				
Fringe Benefits			72	4.00				
Other			27	1.00				
Services								
Health			1	1.00				
Food			7	1.00				
Transportation Cost/Pupil in ADM			246	9.11				
TOTAL— Current Operation			2759	4.49				
Transportation Cost/Pupil Transported			246	3.00				
Capital Outlay/ADM			38	1.00				
Debt Service/ADM			64	1.00				
Teacher-Pupil Ratio			1:8					
Sq. Feet Classroom Space Per Pupil			369					

District U	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration							
Cler. & Secret.							
Instruction Teachers							
Teacher Aides							
Instructional Support Sup. & Equip.							
Guid. & Coun.							
Other							
Institutional Operations Oper. & Maint.							
Fringe Benefits							
Other							
Services Health							
Food							
Transportation Cost/Pupil in ADM							
TOTAL— Current Operation	1193			1844	1.55	1739	1.46
Transportation Cost/Pupil Transported							
Capital Outlay/ADM							
Debt Service/ADM							
Teacher-Pupil Ratio				1:14		1:10	
Sq. Feet Classroom Space Per Pupil				65		75	

District U (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL–Current Operation	1275	1.07	1255	1.05				
Transportation Cost/Pupil Transported								
Capital Outlay/ADM								
Debt Service/ADM								
Teacher-Pupil Ratio	1:11		1:9.5					
Sq. Feet Classroom Space Per Pupil	20		NR					

District U (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL– Current Operation					1988	1.67		
Transportation Cost/Pupil Transported								
Capital Outlay/ADM								
Debt Service/ADM								
Teacher-Pupil Ratio					1:7			
Sq. Feet Classroom Space Per Pupil					85			

District V	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management							
Administration	42	42	1.00	131	3.12	134	3.19
Cler. & Secret.	41	62	1.50	77	1.87	78	1.90
Instruction							
Teachers	392	392	1.00	725	1.85	1019	2.59
Teacher Aides		4	NCFA	82	NCFA	79	NCFA
Instructional Support							
Sup. & Equip.	54	76	1.40	72	1.33	80	1.48
Guid. & Coun.	9	9	1.00	9	1.00	9	1.00
Other	9	102	11.35	209	23.20	216	23.96
Institutional Operations							
Oper. & Maint.	75	75	1.00	250	3.33	250	3.33
Fringe Benefits	35	33	.94	71	2.02	56	1.60
Other	52	52	1.00	52	1.00	52	1.00
Services							
Health	5	5	1.00	95	19.05	99	19.70
Food	1	1	1.00	1	1.00	1	1.00
Transportation Cost/Pupil in ADM	19	19	1.00	584	30.73	584	30.73
TOTAL– Current Operation	734	872	1.19	2358	3.21	2657	3.62
Transportation Cost/Pupil Transported	44	44	1.00	584	13.27	584	13.27
Capital Outlay/ADM	9	9	1.00	9	1.00	9	1.00
Debt Service/ADM	12	12	1.00	12	1.00	12	1.00
Teacher-Pupil Ratio	1:26	1:35		1:15		1:10.2	
Sq. Feet Classroom Space Per Pupil	30	30		100		100	

NCFA—No comparison figure available

District V (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration	98	2.33	221	5.25	42	1.00	137	3.25
Cler. & Secret.	56	1.36	99	2.41	41	1.00	68	1.65
Instruction Teachers	1331	3.39	1320	3.36	392	1.00	950	2.42
Teacher Aides	12	NCFA	93	NCFA			386	NCFA
Instructional Support Sup. & Equip.	94	1.74	137	2.53	56	1.03	67	1.24
Guid. & Coun.	9	1.00	127	14.07	9	1.00	17	1.89
Other	9	1.00	667	74.14	146	16.17	118	13.12
Institutional Operations Oper. & Maint.	428	5.70	220	2.93	75	1.00	195	2.60
Fringe Benefits	82	2.34	133	3.80	37	1.06	136	3.89
Other	52	1.00	52	1.00	52	1.00	52	1.00
Services Health	46	9.20	63	12.60	5	1.00	32	6.40
Food	1	1.00	1	1.00	1	1.00	1	1.00
Transportation Cost/Pupil in ADM	584	30.73	584	30.73	19	1.00	584	30.73
TOTAL–Current Operation	2802	3.82	3717	5.06	875	1.19	2743	3.74
Transportation Cost/Pupil Transported	584	13.27	584	13.27	44	1.00	584	13.27
Capital Outlay/ADM	9	1.00	9	1.00	9	1.00	9	1.00
Debt Service/ADM	12	1.00	12	1.00	12	1.00	12	1.00
Teacher-Pupil Ratio	1:7.4		1:8.5		1:26.8		1:11	
Sq. Feet Classroom Space Per Pupil	171		88		30		78	

District V (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration					85	2.01	42	1.00
Cler. & Secret.					41	1.00	41	1.00
Instruction Teachers					1124	2.86	1305	3.32
Teacher Aides					137	NCFA		
Instructional Support Sup. & Equip.					68	1.25	54	1.00
Guid. & Coun.					9	1.00	9	1.00
Other					130	14.49	9	1.00
Institutional Operations Oper. & Maint.					317	4.23	668	8.90
Fringe Benefits					103	2.94	60	1.71
Other					52	1.00	52	1.00
Services Health					78	15.56	5	1.00
Food					1	1.00	1	1.00
Transportation Cost/Pupil in ADM					584	30.73	584	30.73
TOTAL– Current Operation					2729	3.72	2830	3.86
Transportation Cost/Pupil Transported					584	13.27	584	13.27
Capital Outlay/ADM					9	1.00	9	1.00
Debt Service/ADM					12	1.00	12	1.00
Teacher-Pupil Ratio					1:8		1:9	
Sq. Feet Classroom Space Per Pupil					127		267	

District W	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration							
Cler. & Secret.							
Instruction Teachers							
Teacher Aides							
Instructional Support Sup. & Equip.							
Guid. & Coun.							
Other							
Institutional Operations Oper. & Maint.							
Fringe Benefits							
Other							
Services Health							
Food							
Transportation Cost/Pupil in ADM							
TOTAL— Current Operation	647			1863	2.88	2038	3.15
Transportation Cost/Pupil Transported							
Capital Outlay/ADM							
Debt Service/ADM							
Teacher-Pupil Ratio							
Sq. Feet Classroom Space Per Pupil							

District W (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL— Current Operation	3146	4.86	2245	1.47	736	1.14	1872	2.89
Transportation Cost/Pupil Transported								
Capital Outlay/ADM								
Debt Service/ADM								
Teacher-Pupil Ratio								
Sq. Feet Classroom Space Per Pupil								

District W (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL— Current Operation			1809	2.80	1945	3.00		
Transportation Cost/Pupil Transported								
Capital Outlay/ADM								
Debt Service/ADM								
Teacher-Pupil Ratio								
Sq. Feet Classroom Space Per Pupil								

District X	Regular Program Cost/Pupil	Gifted		EMR		TMR	
		Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management							
Administration	46			46	1.00	46	1.00
Cler. & Secret.	18			18	1.00	18	1.00
Instruction							
Teachers	381			676	1.77	1162	3.04
Teacher Aides	2						
Instructional Support							
Sup. & Equip.	14			45	3.20	45	3.20
Guid. & Coun.	5			5	1.00	5	1.00
Other	24			62	2.56	60	2.50
Institutional Operations							
Oper. & Maint.	103			103	1.00	103	1.00
Fringe Benefits							
Other	4			4	1.00	4	1.00
Services							
Health	1			1	1.00	1	1.00
Food	25			25	1.00	25	1.00
Transportation Cost/Pupil in ADM	31			212	6.83	352	11.35
TOTAL— Current Operation	654			1197	1.83	1821	2.78
Transportation Cost/Pupil Transported	76			352	4.62	352	4.62
Capital Outlay/ADM	20			20	1.00	20	1.00
Debt Service/ADM	80			80	1.00	80	1.00
Teacher-Pupil Ratio	1:22			1:14		1:8	
Sq. Feet Classroom Space Per Pupil	30			30		30	

District X (cont.)	Hearing		Vision		Speech		Physical	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management								
Administration	46	1.00	46	1.00	46	1.00		
Cler. & Secret.	18	1.00	18	1.00	18	1.00		
Instruction								
Teachers	1344	3.52	900	2.36	381	1.00		
Teacher Aides	117	58.59						
Instructional Support								
Sup. & Equip.	43	3.07	230	16.39	16	1.14		
Guid. & Coun.	5	1.00	5	1.00	5	1.00		
Other	24	1.00	24	1.00	235	9.77		
Institutional Operations								
Oper. & Maint.	216	2.10	155	1.50	137	1.33		
Fringe Benefits								
Other	4	1.00	4	1.00	4	1.00		
Services								
Health	1	1.00	1	1.00	1	1.00		
Food	25	1.00	25	1.00	25	1.00		
Transportation Cost/Pupil in ADM	256	8.25	365	11.77	31	1.00		
TOTAL—Current Operation	2099	3.21	1773	2.71	899	1.37		
Transportation Cost/Pupil Transported	256	3.36	365	4.80	76	1.00		
Capital Outlay/ADM	20	1.00	20	1.00	20	1.00		
Debt Service/ADM	80	1.00	80	1.00	80	1.00		
Teacher-Pupil Ratio	1:6.4		1:10		1:36			
Sq. Feet Classroom Space Per Pupil	63		45		1800*			

* Total classroom space

District X (cont.)	Neurological		Emotional		S.L.D.		Multiple	
	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential	Cost/Pupil	Cost Differential
Management Administration								
Cler. & Secret.								
Instruction Teachers								
Teacher Aides								
Instructional Support Sup. & Equip.								
Guid. & Coun.								
Other								
Institutional Operations Oper. & Maint.								
Fringe Benefits								
Other								
Services Health								
Food								
Transportation Cost/Pupil in ADM								
TOTAL— Current Operation								
Transportation Cost/Pupil Transported								
Capital Outlay/ADM								
Debt Service/ADM								
Teacher-Pupil Ratio								
Sq. Feet Classroom Space Per Pupil								